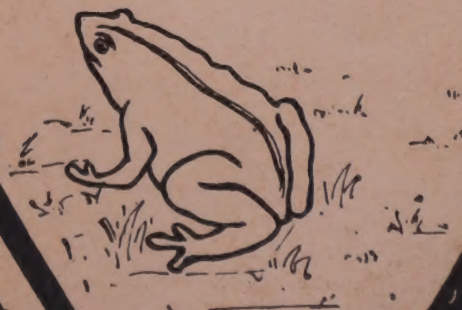
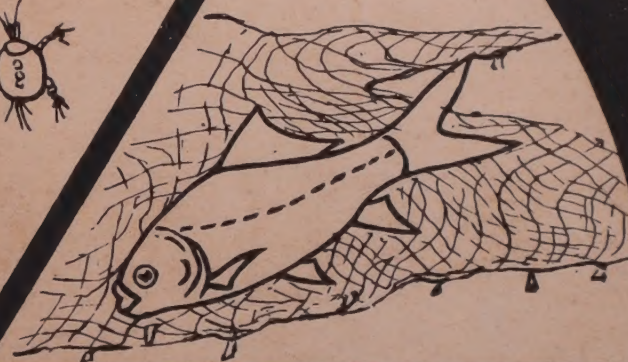
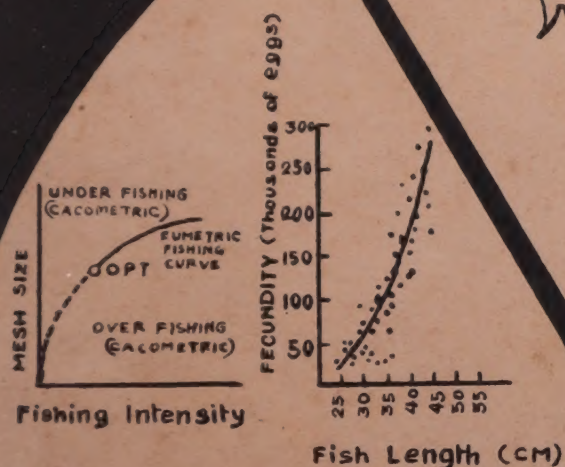


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(Specialized Abstracts: History Index)

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by

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Anjali De

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I. ENTRIES

1. Achuthankutty, C.T. 1973
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Sexual abnormalities in the genus Acetes (Sergestidae, Decapoda). Curr. Sci., 42(23):827-828. 13 ref.
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Experiments on induced breeding of Indian major carps by pituitary hormone injections in Uttar Pradesh.
J. Inland Fish. Soc., India, 5 :37-45. 6 ref.
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Clupeoid fishes of Godavari estuary, with some ecological observations. J. Inland Fish. Soc. India, 5 : 1-8.

An account of different ecological parameters viz., salinity temperature, plankton, nutrient etc. of the Godavari estuary has been given. 33 species of clupeoid fish have been described along with their distribution in the estuary in relation to salinity levels. 10 ref.

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availability in ponds. Ibid , 5 : 208-214.

Effects of siltation in different types of ponds in the Sundarbans having different depth and water of varying salinity have been discussed. The authors report that heavy silting causes depletion in nutrient level and this may be replenished by regular addition of soluble fertilizers. 4 ref.

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Observations on the spawning of Hilsa ilisha (Hamilton)
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artificial feeds for fish. Ibid , 5 : 162-170. 52 ref.

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 On the occurrence of pearls in Placenta placenta
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 carps. J. Inland Fish. Soc. India, 5:218-222.

A technique of hypophysation which has been called "Farmer's method" by the authors, has been described in the paper. The process includes collection of pituitary gland from a donar of comparable size of the recipient fish and then grinding the same with distilled water in the field itself and use of the extract in fresh condition. 80% success in inducing spawning has been reported by the authors. 2 ref.

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 Observations on the relative usefulness of different feed for carp spawn and fry. Ibid, 5 : 182-188.

Comparative effectiveness of different items, which can be used as feed for carp spawn and fry have been described. In case of fry zooplankton was found to be the best food for Catla catla while silkworm pupae was found suitable for Labeo rohita and Cirrhinus mrigala. Highest survival and L/W increment was obtained with zooplankton for the spawn of all the three species. 5 ref.

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 A note on normal bacterial flora of male Tilapia
mossambica (Peters). Sci. & Cult. 39(11):515-516.
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 Fertility of hybrids of Indian carps and preliminary
 studies on the F₂ generation of carp hybrids.
J. Inland Fish. Soc., India , 5 : 195-200

The author reports that majority of hybrids, produced by inter crossing cultivated carps belonging to 3 genera and 7 species, attained maturity and were found to be fertile. F₂ generation of one inter specific (L. rohita x L. calbasu) and one intergeneric (Catla catla x L. rohita) hybrid could be obtained by hypophysation. Morphological characters of hybrids have been given.

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16. Das, P. 1973
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 Barrackpore, West Bengal)
 A note on 'Golva', a bag net in the Damanganga
 estuary at Daman. J. Bombay Nat. Hist. Soc., 70(1):
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A description of the 'Golva', a bag net operated in the Damanganga estuary has been given. Types of fishes, caught by this net and operation method of the net have also been given.

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 Capacity of Anabas testudineus (Bloch) to feed on insects. J. Inland Fish. Soc. India, 5 :137-140.

Results of investigation on the capacity of Anabas sp. to feed on Anisops have been reported. According to the authors there was no difference in the rate of consumption in clear and turbid water. The authors suggest that the fish could be cultured in carp polyculture tanks to control undesirable insects. 2 ref.

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Secondary sexual characters of Anabas sp., Heteropneustes fossilis, Clarias batrachus, Notopterus sp. etc. have been described. 7 ref.

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 have been reported. 6 ref.

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Soc. India, 5 : 29-36.

Different types of gill nets operated in
 Hooghly-Matlah estuarine system have been described.
 8 ref.

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Food of silver carp and the growth of the fish in sewage-fed ponds have been presented. Their observations indicate that fish can be cultured in sewage-fed ponds along with Indian major carps leading to high production. 5 ref.

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On the salinity tolerance of fry and fingerlings of Indian major carps. Ibid , 5 : 215-217

Tolerance limits of the fry and fingerlings of Indian major carps exposed to different levels of salinity have been reported. Growth properties of the fish at different levels of salinity, from traces to 15 ppt. have been discussed. The authors are of opinion that advanced fry (av. size 26 mm) can tolerate up to 10 ppt with 50% mortality while fingerlings of Catla catla and Labeo rohita can tolerate 12.5 ppt with 48% mortality. 1 ref.

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The author reports that with the increase in the size of the fish the food habit of the fish changes. Different food items on which of S. phasa subsists and their seasonal fluctuations in relation to different size groups have also been presented. 14 ref.

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Concept of selective toxicants in aquaculture.
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A review of selective toxicants used in India and other parts of the world is given. The influence of water quality upon these compounds has been discussed. The author has given certain criteria of an ideal selective toxicant. 27 ref.

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districts have been dealt with. 4 ref.

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Studies on the age and growth and food habits of the grey
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(Age and growth of M. cephalus, as revealed from the
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reported. Length-weight relationship and food and feeding
habits of the fish have also been dealt with. 18 ref.

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J. Inland Fish. Soc. India, 5:201-207.

Results of composite fish culture, conducted at Kalyani
in a 0.15 ha pond using Indian major carps and exotic fish, have
been discussed. Grass carp, Ctenopharyngodon idella, attained a
growth of 2.53 kg in an average in six months period which is
one of the significant achievement of the experiment. 16 ref.

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Recent improvements in sonar fish finding equipments for higher efficiency and performance. Seafd export J., 5(3):21-26.

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Results of induced breeding experiments conducted at the University experiment station have been discussed. Fat development in Catla catla and Labeo rohita breeders in Adhartal Lake and the age at which they attain maturity in Madhya Pradesh have also been dealtwith. 28 ref.

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Unilateral amelia in Labeo rohita (Ham.). Sci. & Cult. 39(12):560-561.

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II. AUTHOR INDEX

Every author's name appearing in the original article is listed alphabetically, including corporate bodies (societies, organisations etc.), whether occurring as single or multiple words. (Reference is given to the serial No. of the entry).

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111. Sen Roy, R.R. 1974
Fresh water aquaculture in India. Sci. Repr., 11(1): 29-31.

Problems of freshwater fish culture in India have been discussed. Scientific methods for pisci culture, the species cultured in different parts of the country, fisheries management etc. have also been dealt with.

112. Seshappa, G., V.S.K. Chennubhotla and K.V. Somasekharan Nair 1972
(Central Marine Fisheries Research Institute, Sub-station, Calicut -5).
A note on a whale shark Rhincodon typus Smith Caught off Calicut. Indian J. Fish., 19(1&2):200-201.

A brief description of a juvenile specimen of R. typus has been given. 6 ref.

113. Shaffi, S.A., A.K. Jafri and D.K. Khawasa 1974
(Department of Zoology, Aligarh Muslim University, Aligarh, India).
Alkaline phosphatase activity in the ovary of the catfish Clarias batrachus (Linn.) during maturation. Curr. Sci., 43(2): 51p

Describes the quantitative changes in the activity of alkaline phosphatase in the ovary of Clarias batrachus during its growth and maturation. The authors report that the activity of this enzyme varies with different stages of maturation. 9 ref.

114. Shyamasundari, K. and K. Hanumantha Rao 1974
(Department of Zoology, Andhra University, Waltair).
On the occurrence of mucous glands in the appendages of Talorchestia martensii (Weber) and Orchestia platensis Kroyer (Crustacea, Amphipoda). Ibid , 43(4): 122-123. 4 ref.
115. Sreedharan Namboodiri, K. and M.D. Varghese 1973
(Central Institute of Fisheries Technology, Cochin-5).
Eradication of predatory fishes in fish ponds and nursery ponds using electricity. Fish. Technol., 10(2):116-119.

Deals with three methods of eradication of unwanted fishes from fish ponds using electricity. The authors have calculated the cost of operation, using such methods, to be Rs. 3/- per 10 m² for small ponds of 500 sq. m in area and 3 m of av. depth. 1 ref.
116. Subrahmanyam, M. 1974
Prawn farming in paddy fields. Farmer and Parliament Jan. 1974 : 11-12, Contd on page 30.,

Prawn farming in the paddy fields of Kerala and West Bengal have been dealt with.
117. Surendran, P.K. and K. Mahadeva Iyer 1973
(Central Institute of Fisheries Technology, Ernakulam, Cochin-11).
Experimental preservation of sardines (Sardinella longiceps) using chlorotetracycline. Fish. Technol., 10(2):110-115.

Describes the effects of chlorotetracyclin (5 and 10 ppm) on the ice storage of S. longiceps. The authors report that etc treatment considerably reduced bacterial growth. Etc. was found to have no effect in controlling the development of rancidity. 26 ref.

118. Suryanarayanan, H., R. Shylaja Kumari and K.M. Alexander 1973
(Department of Zoology, University of Kerala, Kariavattom-P.O. Trivandrum, India).
Biochemical investigations on the edible molluscs of Kerala. II. A study on the nutritional value of some gastropods and cephalopods. Ibid , 10(2):100-104.

Biochemical composition and food value of two gastropods, viz., Pila virens and Achatina fulica and two cephalopods viz., Loligo indica and Sepiella inermis have been discussed. According to the authors the protein and mineral content of the flesh of these molluscs can be favourably compared with popular food fishes. 16 ref.

119. Talwar, P.K. 1974
(Zoological Survey of India, 27, Jawaharlal Nehru Road, Calcutta-13).
The hammerhead shark, Sphyrna lewini (Griffith and Smith) from the east coast of India, with remarks on its taxonomy. Curr. Sci., 43(1):15-16. 2 ref.

120. Thakur, N.K. 1974
(Central Inland Fisheries Research Institute, Bihar).
Story of cultured pearls. Sci. Rept., 11(4):168-172.

Methods of pearl oyster culture in Japan and formation of pearls have been discussed. 4 ref.

121. Thomas, M.M. 1972
(Central Marine Fisheries Research Institute, Cochin-11).
Growth of the spiny Lobster, Panulirus homarus (Linnaeus) in captivity. Indian J. Fish., 19(1&2): 125-129.

Growth of P. homarus in relation to moulting has been reported. The author reports that the ecdysis in all cases was during night and the growth rate in the younger specimens was higher than the older ones. 17 ref.

122. Thomas, M.M. 1972

(Central Marine Fisheries Research Institute,
Sub-station, Calcut - 5).

Food and feeding habits of Penaeus monodon Fabricius from Korapuzha estuary. Ibid , 19(1 & 2):202-204.
8 ref.

123. Tripathi, S.D. and J.H. Agarwal 1973

(Instrument Development & Service Centre, Jawaharlal
Nehru Krishi Vishwavidyala, Jabalpur).

Post-galvanonarcotic behaviour of fish. JNKVV. Res.
J., 7(3):168-169.

Results of observations on the effect of galvanonarcosis on some fishes have been discussed. Of the seven species of fish tried only Osteobrama coitio surface up after galvanonarcotisation while other species e.g, Ambasis nama, Puntius sophore, Glossogobius giuris etc. sink to the bottom as reported by the authors. 2 ref.

II. AUTHOR INDEX

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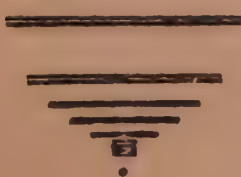
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I. ENTRIES

124. Alagaraswami, K. 1974
 (Central Marine Fisheries Research Institute,
 Sub-station, Tuticorin).
 Development of cultured pearls in India.
Curr. Sci., 43(7):205-207. 4 ref.
125. Ameer Hamsa, K.M.S 1973
 (Central Marine Fisheries Research Institute,
 Regional Centre, Mandapam Camp).
 Abnormality in the right chela of the portunid
 crab, Portunus pelagicus Linnaeus. Indian J. Fish.,
20(1):231-232. 2 ref.
126. Ananthakrishnan, K.R.¹ and M.N. Kutty² 1974
 (¹Department of Zoology, Madura College, Madurai.
²Department of Biological Sciences, Madurai University,
 Madurai).
 Mortality and breathing rate at high ambient temperatures
 in the Cichlid fish, Tilapia mossambica Peters.
Indian J. exp. Biol., 12(1):55-59.
- Breathing rate and mortality of T. mossambica exposed
 to different temperatures, have been dealt with. As reported
 by the authors the fish showed longer resistance in 10% sea
 water than in freshwater. 28 ref.
127. Balachandran, T. 1974
 (Regional Centre, National Institute of Oceanography,
 Cochin -18, Kerala).
 Phenoxetol a as good storing medium-cum-preservative
 for zooplankton in the tropics. Curr. Sci., 43(12):
 380-381.
- The author reports that 0.5% phenoxetyl in distilled
 water buffered with 1% sodium tetraborate can be used as an
 efficient storing medium-cum-preservative, after adequate
 fixation in 2% formaldehyde, for zooplankton. 11 ref.

128. Balan, V. 1973
 (Central Marine Fisheries Research Institute
 Sub-station, Kozhikod -5).
 Purse-seine and boat-seine (thanqu vala) fishery for
 the oil sardine off Cochin 1968-1971. Indian J. Fish.,
 20(1):70-77. 7 ref.

129. Bensam, P. 1973
 (Central Marine Fisheries Research Institute,
 Substation, Tuticorin).
 On a few post larval stages and juveniles of the
 sardine, Sardinella dayi Regan. Ibid , 20(1):148-156.

Some post-larval stages of S. dayi ranging from
 18.70 mm - 20.25 mm and juveniles of 28 mm - 36 mm have been
 described. Some identifying characters of the larvae and
 juveniles of this species and the characters which distinguish
 them from the larvae and juveniles of the related species have
 been presented. 6 ref.

130. Chaudhuri, A.B. and K. Chakrabarti 1974
 Wild life biology of Sunderbans forests. Bioecological
 study on fish and fish resources and biological basis
 of a rational fishery. Sci. & Cult., 40(3):93-99.

From their observations, based on statistical data, the
 authors opine that Sunderbans estuary has immense economic fish
 potentiality. Length/weight relationship of 4 economic species
 of fish viz., Hilsa ilisha, Lates calcarifer, Mugil tade and
M. parsia have been presented. Reasons for low out put of
Hilsa have been discussed. The authors have suggested some
 measures for improvemen of fish productivity in this region.

131. Chaudhuri, H., R.D. Chakraborty, N.G.S. Rao, K. Janakiram,
 D.K. Chatterjee and S. Jena 1974
 (Central Inland Fisheries Research Substation, Cuttack).
 Record fish production with intensive culture of Indian
 and exotic carps. Curr. Sci., 43(10):303-304.

Report, the results of investigations on poly-culture
 of Indian and exotic carps conducted at the Cuttack Substation
 of the Central Inland Fisheries Research Institute. The ponds

were stocked with the fingerlings of Indian major carps and Chinese carps at a high stocking density of 10,540 fingerlings/ha and were fertilised with inorganic and organic fertilizers. The highest yield recorded in one of the ponds was a net production of 7,343 kg/ha/yr which as has been claimed by the authors, is the highest recorded yield in pond culture operations in India. Some species of minor predators were used along with the carps to consume mulluscs, shrimps, insects etc. occurring in the pond. 4 Ref.

132. Chandrasekhar, T.C. 1973
 (Fisheries College, U.A.S., Mangalore).
 Fish paste products in the Indo-Pacific region.
Seafd. export J., 5(4):27-29.

133. Charan, Dinesh 1971
 (Institute of Zoology, Khandari Road, Agra-2, India).
 The pelvic musculature of Rana tigrina Daud. Annals of Zool., 7(4): 81-92.

 The pelvic musculature of R. tigrina has been described.
 Functions of individual muscles have also been dealt with. 19 ref.

134. Dasgupta Papiya and Samir Bhattacharya 1974
 (Department of Zoology, Visva-Bharati University, Santiniketan).
 Iodotyrosine synthesis by fish (Anabas testudineus) kidney soluble supernatant. Indian J. expt. Biol., 12(1):49-51. 19 ref.

135. Dayal, Shambhu 1973
 (Department of Agriculture, Govt. of India).
 Projections for demand of fish in India. Seafd export J. 5(4):13-22. 8 ref.

136. Desai, V.R. 1973
 (Coordinated Project on reservoir fisheries, Rihand, Turra, Mirzapur).
 Studies on fishery and biology of Tor tor (Hamilton) from river Narmada. II. Maturity, fecundity and larval development. Proc. Indian nat. Sci. Acad.(8) 39(2):228-248

Maturity, fecundity and breeding habits of Tor tor have been dealt with. The author reports that the breeding period extends from July to March the peak period being July to September only. Five larval stages of T. tor have also been described. 27 ref.

137. Devadoss, P. 1973

(Central Marine Fisheries Research Institute Centre, Marine Biological Station, Porto Novo).

On the occurrence of juvenile oil sardines, Sardinella longiceps in the inshore waters of Bombay. Indian J. Fish., 20(1):234-236.

Reports an unusual large scale migration of young oil sardines to the in shore waters of Bombay during the months of January-February 1971. Size frequency, scale reading and stomach contents studies were also made. 1 ref.

138. Devaraj, M. 1973

(Freshwater Biological Research Station, Bhavanisagar). Experiments on the culture of the large snake head Ophicephalus marulius (Hamilton). Ibid , 20(1):138-147

Results of experiments conducted on the culture of a murrel Channa marulius (Hamilton) have been presented. The author reports that Tilapia mossambica below 80 mm were used as the food in this culture of C. marulius in farms. 12 ref.

139. Dhulkhed, M.H. 1973

(Central Marine Fisheries Research Substation, Mangalore-1).

Sex ratio in oil sardine . Ibid, 20(1):236-240.

Reports the results of observations on the sex-ratio of Sardinella longiceps caught in the Mangalore area over a period of eleven years. 6 ref.

140. Dorairaj, K. 1973
(Central Marine Fisheries Research Institute, Regional Centre, Mandapam Camp).
Hermaphroditism in the threadfin fish, Polynemus microstoma Bleeker. Ibid, 20(1):256-259. 9 ref.
141. Dube, S.C. and J.S. Datta Munshi 1974
(Department of Zoology, Bhagalpur University, Bhagalpur).
Diffusing capacity of gills of the climbing perch, Anabas testudineus (Bloch) in relation to body size.
Indian J. exp. Biol., 12(2):207-208.
- The diffusing capacity of gills of A. testudineus of different size groups have been discussed. The authors observed reduction in diffusing capacity of gills as the fish grow in size. 9 ref.
142. Durve, V.S. 1973
(Department of Zoology, University of Udaipur, Rajaethan).
Experimental transplantation of the clam Meretrix casta (Chemnitz) in the marine fish farm. Indian J. Fish., 20(1):56-60. 7 ref.
143. Ghosh, A¹, B.B. Ghosh² and A.K. Basu³ 1974
(1 & 2 Central Inland Fisheries Research Institute, Barrackpore, West Bengal. 3 Centre Public Health and Engineering Research Institute, Zonal Laboratory, Calcutta-1).
Preliminary observations on acute toxicity of a coal-tar mill effluent, using copepod as test animal. Indian J. exp. Biol., 12(2):203-204. 6 ref.
144. Ghosh, Amitabha 1974
(Central Inland Fisheries Research Institute, Barrackpore, West Bengal).
On some parasites of fish. (Souv. 10th Annl. Reunion, Dept. of Zool., Kalyani University :7-8.

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145. Gupta, T.R. Chandrashekhara 1973
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Intestinal abnormality in the ribbon fish, Trichiurus lepturus Linnaeus. Indian J. Fish., 20(1):233 p

An abnormality in the length of the intestine and position of the anal aperture in the ribbon fish T. lepturus has been described. 2 ref.

146. Huq, Molla, F., M.K. Inamul Haque and A.K.M. Aminul Haque 1973
(Faculty of Fisheries, Bangladesh Agricultural University, Mymensingh, Bangladesh).
An experiment on the feeding of fry of catfish Heteropneustes fossilis. Ibid, 20(1):35-42.

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147. Jhingran, V.G. 1974
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148. Kagwade, P.V. 1973
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149. Kalyani, M. 1974
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Amino acid composition and carbohydrate units in the adductor muscle of Amussium pleuronectes and Meretrix meretrix. Proc. Indian Acad. Sci. (B), 79(3):103-109. 7 ref.
150. Kathirvel, M. 1973
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151. Kesavan Nair, A.K., K. Balan and B. Prasannakumary 1973
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152. Khan, H.A. and S.K. Mukhopadhyaya 1973
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154. Kuthalingam, M.D.K., G.Luthar and J.J. Joel 1973
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- The colour pattern of the fish at different stages of growth have been described. Some meriotic characters and food habit of the fish have also been dealt with. 6 ref.
155. Kutty, M. Krishnan¹, A.K. Kesavan² and S.Z. Qasim³ 1973
(¹Regional Centre, National Institute of Oceanography, Cochin-18. ^{2&3} Central Marine Fisheries Research Institute, Cochin-18).
An evaluation of the sampling design adopted by the Central Marine Fisheries Research Institute, for estimating marine fish production of India. Ibid, 20(1):16-34. 9 ref.
156. Mahendra Beni Charan and Dinesh Charan 1972
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Homology and functional significance of the urostyle in Rana tigrina Daud and Bufo andersonii Bouleng.
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157. Muthu, M.S. and P.E. Sampson Manickam 1973
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burkenroadi kubo in the Pulicat Lake. Indian J. Fish.,
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 Egmore, Madras-8. 2Central Marine Fisheries Research
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 On the distinction between Penaeus indicus H. Milne
 Edwards and Penaeus merguensis De Man (Crustacea : Decapoda
 Penaeidae) with special reference to juveniles. Ibid ,
20(1):61-69

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 have been presented. Differences between these species in the adult
 as well as juvenile stages, have been given. 13 ref.

159. Nair, R.V. and R. Soundarajan
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161. Narasimham, K.A. 1973
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survey revealed that at 4 places appreciable quantities of "deep
sea mackerel" Emmolecthus nitidus could be located. 8 ref.
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A karyotype study of some teleosts from portonovo waters.
Proc. Indian Acad. Sci., 79(5):173-196.
- Reports the karyotypes of 16 teleost species belonging to
15 families and 7 orders. The authors could not observe any
heteromorphic pair in any of the species. The chromosome numbers
of the fishes studied vary from 40 to 62 indiploid stage. 50 ref.
164. Nath Dharmendra 1973
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Rana cyanophlyctis and 8 species of fish has been described.
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~~Reports the histological changes of the interrenal cells~~
 Reports the histological changes of the interrenal cells
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 Cuttack).
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 in the Chilka lake. Ibid, 20(1) : 43-55.

Deals with the seasonal fluctuations of phyto- and zooplankton in relation to some of the environmental variables, during the period April '64 to March '65. 23 ref.

170. Perumal, M.C., M. Mukundan and R. Rajendran 1973
(Central Institute of Fisheries Operatives, Cochin-16).
Model experiments with 31 m trawl and comparison with field trials. Ibid, 20(1):1-15.

Operational efficiency of a model two-seam trawl net, tested in a towing tank has been discussed. Horizontal and vertical openings and warp tension were measured at various speeds. The design of the model net has been described in detail. 11 ref.

171. Qasim, S.Z. 1973
(Central Marine Fisheries Research Institute, Cochin).
An appraisal of the studies on maturation and spawning in marine teleosts from the Indian waters. Ibid, 20(1): 166-181.

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172. Rajyalakshmi, T. 1973
(Central Inland Fisheries Research Institute, Krishna Godavari Unit, Rajahmundry).
The population characteristics of the Godavari hilsa over the years 1963-1967. Ibid, 20(1):78-94. 17 ref.

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(¹National Botanic Gardens, Lucknow. ²Central Salt and Marine Chemicals Research Institute, Bhavnagar and ³Regional Labour Institute, Sarvodaya Nagar, Kanpur).
Effect of Anacystis nidulans on the physico-chemical and Biological characteristics of raw sewage. Proc. Indian Acad. Sci., (B), 78(3):139-146.

Reports the changes in the physico-chemical, bacteriological and algal characteristics of raw sewage brought about by the inoculation of Anacystis sp. The authors suggest that a period of three days is sufficient for the treatment of sewage by Anacystis nidulans. 4 ref.

- 176.. Sebastian, M.J. and M. Krishna Pillai 1974
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Two new genera of cirruid copepods. Indolausia and Stockia. Copepod, 24(1):90-93.

Two species of cirruid copepods have been described, which according to the authors, are the first report of these copepods from Indian waters. Affinities of the newly created genera have also been discussed. 5 ref.

177. Sekharan, K.V. 1973
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The depth distribution of the cat fishes, Tachysurus thalassinus (Rupp) and T. tenuispinis (Day), in the North-Western Bay of Bengal. Indian J. Fish., 20(1): 193-204.
178. Sen Roy, R.R. 1974
Hypophysation - as answer to the problem of pure fish seed. Sci. Rept. 11(5):249-251.

Collection and preservation of pituitary gland, preparation of pituitary extract, pre and post injection operation etc. have been discussed.
179. Seshagiri Rao, B.V. 1974
(Zoology Department, D.N.R. College, Bhimavaram 534202, Andhra Pradesh).
On the form of gill raker serrae in the Indian ilisha. Curr. Sci., 43(13):420-421.

The author reports that the size and arrangement of serrae vary in different species of Ilisha found in Indian waters. 5 ref.
180. Shanmughavelu, C.R. 1973
(Central Marine Fisheries Research Institute, Regional Centre, Mandapam camp).
On the largest specimen of big-jawed jumper, Lactarius lactarius (Schneider). Indian J. Fish., 20(1):244-245.
4 ref.
181. Siddiqui, Neena 1974
(Department of Zoology, Aligarh Muslim University, Aligarh).
Some chemical constituents in the blood plasma of four species of freshwater air-breathing fishes. Curr. Sci., 43(12): p 385

Chemical constituents of the blood of Clarias batrachus, Heteropneustes fossilis, Channa punctatus and C. striatus have been presented. The author reports that the chemical constituents of blood of the fishes are affected by the quality of food they consume. 5 ref.

182. Sinha, V.R.P.¹, V.G. Jhingran² and S.V. Ganapati³ 1974
 (1&2 Central Inland Fisheries Research Institute, Barrackpore, West Bengal, India. ³ Department of Biochemistry, M.S. University of Baroda, Baroda-2, India).
 A review on spawning of the Indian major carps.
Arch. Hydrobiol. 73(4):518-536.

The authors have reviewed the existing knowledge on the spawning of Indian major carps. Breeding of carps in different environments, factors influencing the spawning of carps, hypophysation techniques and factors influencing spawning in hypophysation have been discussed in detail. 95 ref.

183. Subrahmanyam, M. 1973
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 Fishery and biology of Metapenaeus monoceros (Fabricius) from the Godavari Estuarine System.
Indian J. Fish., 20(1): 95-107.

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184. Suvarnalatha, M. and H.B. Devaraj Sarkar 1974
 (Department of Zoology, Manasa Gangotri, University of Mysore, Mysore 570006).
 Control of oviductal function in the skipper frog, Rana cyanophlyctis (Schn.). Indian J. exp. Biol., 12(1): 52-54.

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185. Thomas, E.I. 1972
(Department of Zoology, Fatima Mata National College, Quilon, India).
Structure of the heart in the tadpole larvae of Rana tigrina Daud. Annals Zool., 8(2):41-50. 9 ref.
186. Trivedi Yogendra 1974
(Marine Biological Research Station, Department Fisheries, Govt. Gujarat, Port Okha, Gujarat).
A note on the fish Amphiprion polymnus (Linn.), a new record to the Indian coast. Curr. Sci., 43(12):387-390.

A description of the fish A. polymnus collected off Port Okha, has been embodied in the paper. The author has claimed that the fish has not been reported from Indian waters earlier. 5 ref.
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188. Vedavyasa Rao, P. and M. Kathirvel 1973
(Central Marine Fisheries Research Institute, Cochin-18).
On the breeding of penaeid grown, Metapenaeus dobsoni in the brackish water medium. Ibid, 20(1):228-230.

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189. Venkataraman, L.V. 1974
(Protein Technology Discipline, Central Food Technological Research Institute, Mysore - 570013, India).
Effect of gamma radiation on two developmental stages of Zebra fish eggs. Curr. Sci., 43(11):355-356.

Effects of gamma radiation on the first cleavage and gastrula stage of the eggs of zebrafish Brachydanio rerio have been discussed. 8 ref.

190. Vijayaraghavan, P. 1973
(Central Marine Fisheries Research Institute, Centre,
Protonovo).
Studies on fish eggs and larvae from Indian waters
1. Development of egg and larvae of Hirundichthys
(Hirundichthys) Coromandelensis (Hornell). Indian J. Fish.,
20(1):108-137. 31 ref.
191. Vijayaraghavan, Sumitra 1973
(Department of Biological Science, Madurai University,
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content in three freshwater ponds. Ibid, 20(1):157-165.
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II AUTHOR INDEX

Every author's name appearing in the original article is listed alphabetically, including corporate bodies (Societies, organisations etc.), whether occurring as single - or multiple words. (Reference is given to the serial no. of the entry).

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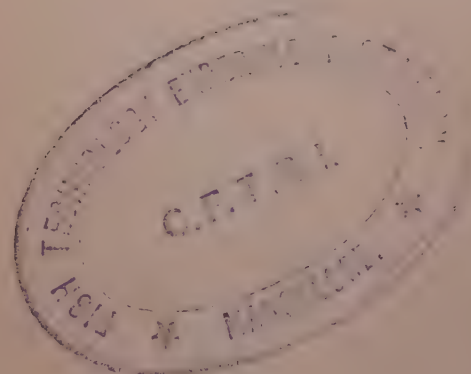
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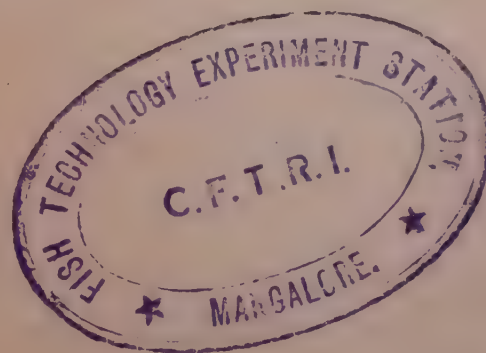
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134. Achuthankutty, C.T. 1975

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Occurance of Acetes australis and Acetes vulgaris along
 the west coast of India, has been reported. According to the author
 this is the first report on the occurrence of the species along the
 coastal area of India. Descriptions of both the species have also
 been presented. 5 ref.

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(¹FAO Project Manager, Shrimp Culture Research Centre,
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137. Battacharya, Shelley, S. Mukherjee and Samir Bhattacharya 1975
(Department of Zoology, Viswa-Bharati University, Santiniketan).
Toxic effects of endrin on hepatopancreas of the teleost fish Clarias batrachus (Linn.). Indian J. exp. Biol. 13(2): 185-186

The authors report that there exists a correlation between the concentration of endrin in water and histopathological changes in hepatopancreas and α -amylase activity in the catfish C. batrachus. The 48 hr LC₅₀ of endrin for the fish was observed to be 0.005 ppm. In higher concentrations of the insecticide greater histopathological changes and greater inhibition of α -amylase was recorded by the authors. 14 ref.

138. Bhattacharya, S.S.¹ and H.G. Kewalramani² 1972
(¹Department of Biology, Siddharth College of Arts and Science, Bombay. ²National Commission of Agriculture, Vigyan Bhavan Annexe, New Delhi-1.).
Salinity and temperature tolerance of the mysid, Mesopodopsis orientalis from West coast of India.
J. Indian Fish. Ass., 2(1&2): 60-68

Reports on the salinity tolerance and temperature tolerance of the Mesopodopsis orientalis inhabiting coastal waters of Bombay. Combined effects of salinity and temperature on the survival of the species have also been discussed. 4 ref.

139. Biswas, M.K. and R.N. Mukherjee 1973
(Zoological survey of India, Calcutta).
Occurance of Balantidium helena Bezenberger (Protozoa Trichostomatida) in the frog Rana hexadactyla Lesson.
J. Zool. Soc. India, 25(1&2): 156-157. 5 ref.

140. Chakraborty, R.D., P.R. Sen and N.G.S. Rao 1975
(Central Inland Fisheries Research Substation Cuttack, Orissa).
Harvesting of ponds under composite culture by netting species representation in the hauls. Sci. & Cult., 41(9): 454-458

Netting experiments, conducted by the authors to examine the efficiency of netting operations and species representation in the hauls, revealed that drage netting was effective in fishing and even species like Cyprinus carpio and Cirrhinus mrigala considered difficult to capture by drag netting could be removed. 1 ref.

141. Chandy, Mohan 1973
 (Marine Biological Research Station, Govt. of Gujarat).
 New records of brachyuran decapods from the Gulf of Kutch.
J. Bombay nat. Hist. Soc. 70(2): 401-402
- A list of brachyuran fauna of the Gulf of Kutch along with the localities of their collection has been given. 6 ref.
142. Daniel, A. and A.S. Rajagopal 1973
 (Zoological Survey of India, Calcutta-12)
 Molluscs of economic value from great Nicobar island.
J. Bombay nat. Hist. Soc. 70(2): 394-398
143. Datta, S.N. 1973
 (Central Inland Fisheries Research Institute, Barrackpore).
 The edible crabs of the deltaic West Bengal. Seafd export J., 5(12): 25-28
- Reports the distribution of the most commercially important edible crabs viz., Scylla serrata and Varuna litterata in the lower Sunderbans region. Fishing methods, transportation and marketing of the species have also been focussed.
144. David, A.¹, N.G.S. Rao² and S.L. Raghavan³ 1975
 (^{1&3}Tank Fisheries Research Unit, CIFRI, Bangalore-1.
²Central Inland Fisheries Research Substation, Cuttack-1),
 Preliminary observations on the periphyton production in a lentic water mass. Indian J. exp. biol., 13(2): 205-3
- Organic production by way of periphyton and the density of periphyton were examined against hydrological factors viz., turbidity pH, DO, CO₂, alkalinity, nitrate and silicate of a tank near Bangalore during 1968 and 1969. 18 ref.

145. Deb, Maya 1973
 (Zoological Survey of India, Calcutta)
 First record of the Genus Sclerocypris sars, 1924
 (Crustacea : Ostracoda), from India, with description
 of two new species. J. Zool. Soc. India, 25(1&2): 47-52

Two new species of Sclerocypris, S. indica and S. rajasthanensis have been described in the paper. 7 ref.

146. Doiphode, P.V. 1972
 (Directorate of Fisheries, Panaji, Goa)
 Occurrence of Rastrelliger kanagurta (Cuvier) in river
 Mandivi, Goa. J. Indian Fish. Ass., 2(1&2): 108-109

Reports the availability of juvenile of Rastrelliger kanagurta in the estuarine waters of river Mandovi in Goa. The author considers this to be the first record of the species in the region. 13 ref.

147. Durve, V.S. 1975
 (Department of Zoology, University of Udaipur, Udaipur, Rajasthan, India).
 Anaesthetics in the transport of mullet seed.
Aquaculture, 5(1): 53-63

From his observations the author reports that of the 13 anaesthetics tried for the transport of mullet seed seven were found suitable. Ether was found to be most unsuitable while Ms 222, Chloral hydrate, Chlorobutanol etc. were found to be useful for mullet seed transport. The author has recommended principles on which the selection of an anaesthetic should be made. 12 ref.

148. Dwivedi, S.N. & G.T. Achuthankutty 1972
 (National Institute of Oceanography Dona Paula, Goa).
 Possibilities for the development of Tuna and Seer
 fisheries along the Goa coast. J. Indian Fish. Ass.,
2(1&2): 17-22. 5 ref.

149. Dwivedi, S.N.¹ and B.N. Desai² 1972
 (1 Central Institute of Fisheries Education, Bombay-61,
 2 National Institute of Oceanography, Panaji, Goa).
 Marine food resources and conservation along the West
 Coast of India. Ibid, 2(1&2): 81-89.

The communication highlights the existing sea food
 resources along the West Coast of India, its potential and adverse
 effects of pollution on environment. This also includes suggestion
 for the conservation of the resources from pollutional hazards.
 14 ref.

150. Dwivedi, S.N.¹ and J.P. Dubey² 1972
 (1 Central Institute of Fisheries Education, Versova,
 Bombay-61. 2 Agriculture Financing Branch, Bank of Baroda,
 Bombay).
 Trends and projections of marine fish production.
Ibid, 2(1&2):102-107. 11 ref.

151. Gantayat, S.C. and B.K. Patnaik 1975
 (Zoology Department, Berhampur University, Berhampur-760007).
 Studies on collagen in some species of Indian fishes: 1.
 Influence of sex and temperature on the collagen content
 of the skin and muscle of Ophiocephalus punctatus.
Sci. & Cult., 41(8):404-406. 20 ref.

152. Gill, T.S. & S.S. Khanna 1975
 (Department of Zoology, D.S.B. Govt. College, Nainital)
 Effect of glucagon upon blood glucose level of the freshwater
 fish Channa punctatus (Bloch). Indian J. exp. Biol.,
13(3):298-300.

Effect of mammalian crystalline glucagon, administered
 intermuscularly in C. punctatus has been discussed. 22 ref.

153. Joshi, H.C., D. Kapoor, R.S. Panwar and R.A. Gupta 1975
 (Central Inland Fisheries Research Substation, Allahabad).
 Toxicity of some insecticides to Chironomid larvae.
Indian J. Environ. Hlth., 17(3):238-241.

Results of bioassay experiments conducted with five insecticides viz., DDT, Endrine, BHC, Malathion and Rogor, using chironomid larvae as test animals, have been reported. The authors conclude that endrine was the most toxic, and DDT the least among the pesticides tested. 5 ref.

154. Kewalramani, K.M. 1973

(Superintendent of Fisheries(Marine), Ahmedabad).
Fisheries training in Gujarat. Seafd. export. J.
5(11):25-28.

155. Kasinathan, R.¹, B.N. Desai² and S.N. Dwivedi³ 1972

(^{1&2}National Institute of Oceanography, Bombay-61.

³Central Institute of Fisheries Education, Bombay-61).

Morphometry and electrophoretic studies of CyanoGLOSSUS
bilineatus (Lac.) from Bombay waters. J. Indian Fish.
Ass., 2(1&2):110-115.

Presents the morphometric characters of C. bilineatus (Lac.) from Bombay waters. Protein components of eye lens and muscle have also been presented to delineate the characters of the species around Bombay. 12 ref.

156. Kotaih, K.¹ and B.S. Rajabai² 1975

(¹Department of Zoology, C.S.R.S. College, Ongole.

²Department of Zoology, Sri Venkateswara University, Tirupati).

Starvation stress on metabolism of the tropical freshwater crab, Paratelphusa hydrodromus (Herbst), with reference to size, sex and sudden changes of temperature. Indian J. exp. Biol., 13(2):180-184.

Oxygen consumption has been observed in fed & starved Paratelphusa hydrodromus (wt.10-50 g) of both sexes. Oxygen consumption was studied on 1st, 7th, 14th, 21st and 28th day of starvation, each at 20, 25, 30, 35 and 40°C temperature levels. 28 ref.

157. Kuo, Ching - Ming & Colin E. Nash 1975
 (Oceanic Institute, Waimanalo, Hawaii, U.S.A.)
 Recent progress on the control of ovarian development and induced spawning of the grey mullet (Mugil cephalus L.). Aquaculture, 5(1):19-29. 13 ref.
158. Marathe, V.B. & S.S. Deshmukh 1972
 (Institute of Science, Nagpur).
 Observations on the food conversion efficiency and the effect of starvation in Rasbora daniconius Ham. J. Indian Fish. Ass., 2(1&2):26-29.
 Effect of some foods on the conversion efficiency of Rasbora daniconius have been discussed. The authors have observed the differences in the conversion ratio with different types of feed and discussed the same. 9 ref.
159. Moitra Rita & Shelly Bhattacharya 1975
 (Department of Zoology, Visva-Bharati University, Santiniketan).
 Influence of diet on amylase activity in the fish Channa punctatus (Bloch). Indian J. exp. Biol., 13(3):314-315.
 Amylase activity in Channa punctatus subjected to different types of feeds (carbohydrate, protein and fat) has been reported. Amylase activity was found to be influenced under different dietic conditions and it was found to be markedly increased with carbohydrate type of feed in all parts of the digestive tract as has been observed by the authors. 12 ref.
160. Mukherjee, A. 1975
 (Operational Research Project, Central Inland Fisheries Research Institute, Anjana Fish Farm, Krishanagar, Nadia).
 Effects of thiourea treatment on thyroid & ovary of the catfish, Heteropneustes fossilis (Bloch). Ibid, 13(4): 327-332.
 The author reports that prolonged treatment with thiourea causes hypertrophy and hyperplasia of follicular epithelium, obliteration of follicular lumen and depletion of colloid in the thyroid of H. fossilis. Thiourea treatment also has some effects on ovary either directly or due to hypothyroidism induced by the goitrogen. 28 ref.

161. Nama, H.S. 1973
(Department of Zoology, University of Jodhpur, Jodhpur)
On the occurrence Janqua anomala (Nematoda : Gnathostomatidae)
from Rana tigrina. J. Zool. Soc. India, 25(1&2):157-158.
3 ref.
162. Narayanareddy, K and K.S. Swami 1975
(Department of Zoology, Sri Venkateswara University,
Tirupati - 517502).
Free amino acid composition in the denervation atrophy of
gastrocnemius muscle of the frog, Rana hexadactyla.
Indian J. exp. biol., 13(4):343-345. 27 ref.
163. National Institute of Oceanography, Annual Report, 1973 --- 61p.
164. Ojha, Jagdish and J.S. Datta Munshi 1975
(Post-graduate Department of Zoology, Bhagalpur University,
Bhagalpur-7).
Oxygen consumption in relation to body size and respiratory
surface area of a freshwater mud-eel, Macrognathus
aculeatus (Bloch). Indian J. exp. biol., 13(4):353-57.

The authors report that O_2 consumption (VO_2) in
M. aculeatus and the respiratory area ('A') (gills + skin)
have the following ratios with total body weight of the fish.
 VO_2 (ml/hr) = $0.1397 W^{0.7086}$ (winter) and $0.2195 W^{0.7140}$ (summer)
 $A^{1.2} = 921.35 W^{0.7119}$. 19 ref.
165. Pandya, J.A. 1972
(Marine Biological Research Station, Port Okha, Gujarat)
Age and growth of the pearl oyster, Pinctada vulgaris
(Schumacher) of the Gulf of Kutch. J. Indian Fish. Ass.,
2(1&2):47-54. 8 ref.
166. Paulpandian, A.L. and T. Kanaupandi 1975
(Centre of Advanced Study in Marine Biology, Marine
Biological Station of Annamalai University, Porto Novo ..
608502, Tamil Nadu).
A note on the occurrence of protein complexes in the
haemolymph of crabs. Curr. Sci., 44(18):670-671. 7 ref.

167. Quasim, S.Z. 1975
(National Institute of Oceanography Dona Paula, Goa).
Multiple use of the sea. *Everyman's Science*, 10(2):60-63.
168. Raje, Prakash C. & M.R. Ranadeh 1972
(Marine Biological Research Station, Kokan Krishi Vidyapeeth, Ratnagiri).
Larval development of Indian penaeid shrimps -I Peneaus merquiensis De Man. J. Indian Fish. Ass., 2(1&2):1-16.
- The larval development of Peneaus merquiensis which was hatched and reared upto post-larval stage in the laboratory has been presented. The author observed five naupliar, three protozoal and three mysis stages in respect of the species before becoming a post larva. The stages have also been compared with those of P. indicus. 5 ref.
169. _____ 1972
(Marine Biological Research Station, Konkan Krishi Vidyapeeth, Ratnagiri).
Larval development of Indian penaeid shrimps- II.
Metapenaeus monoceros (Fabricius). Ibid, 2(1&2):30-46.
- The paper deals with the development of Metapenaeus monoceros from the eggs to the post-larval stages. The stages and the appendages of M. monoceros have also been compared with those of M. dobsoni. 7 ref.
170. Rana, B.C.¹ and H.D. Kumar² 1974
(¹Department of Botany, University of Udaipur, Udaipur.
²Department of Botany, Banaras Hindu University, Varanasi, U.P.)
Eco-physiological studies on the uptake of the pollutants, copper, zinc and phosphate by certain algae. Indian J. Ecol., 1(1): 1-11.

The paper embodies the results of investigations on the capacity to absorb copper, zinc and phosphate from ambient medium of certain algae isolated from polluted and non-polluted habitats.
19 ref.

171. Ranade, M.R. & P.B. Joshi 1973
(Marine Biological Research Station, Ratanagiri, M.S.)
Occurance of Lima (Limaria) fragilis Gmelin (Mollusca)
Pelecypoda) in the coastal waters of Ratnagiri.
J. Bombay nat. Hist. Soc., 70(2):399p.
172. Rao, J.B. and S.J. Karamchandani 1973
(Small Reservoirs Unit, Central Inland Fisheries Research
Institute, Rewa, Madhya Pradesh).
On the sexual diamorphism of a siluroid fish, Ompok,
bimaculatus (Bloch), with particular reference to pectoral
spine. Ibid, 70(2):388-390.
- From his observation the author opines that the pectoral
spine and genetal papilla may be used for sex differentiation in
Ompok bimaculatus. 2 ref.
173. Rao, T.S., M. Srinivasa Rao and S.B.S. Krishna Prasad 1975
(A.U. College of Engineering, Waltair).
Median tolerance limits of some chemicals to the freshwater
fish Cyprinus carpio. Indian J. Environ. Hlth. 17(2):
140-146.
- Results of experiments conducted to assess the Tlm values
of C. carpio for certain toxic chemicals have been presented.
Pyridine, chlordane and silver compounds have been reported to be
comparatively more toxic in this case. 6 ref.
174. Roy, Uma 1975
(Post-doctoral Senior Research Fellow, CSIF, New Delhi).
Some observations on sensitisation of isolated swim bladder
of teleost fish Opiocephalus punctatus Bloch to acetyl-
choline by the extract of caudal neurosecretory substances.
Indian J. exp. Biol., 13(3):253-255.

Contractile response of isolated swim-bladder of
C. punctatus induced by ACH treatment has been discussed. The
response was found to increase by a pretreatment of caudal
neurosecretory extract at a low dose but was found to decrease
with the higher dose. The author could not detect any direct
of the neurosecretory extract on isolated swim-bladder.

175. Saha, G.N. and D.K. Chatterjee 1975
(Central Fisheries Research Substation, Cuttack).
Urea for enhancing the production of zooplankton in fish ponds. Sci. & Cult., 41(7):320-322.
- Results of experiments, conducted in a .04 ha pond for nine months, on the effectiveness of urea in increased production of zooplankters have been presented. From their observations the authors opined that cladocerans, to some extent, can utilise dissolved urea molecules and/or its hydrolytic products in synthesising their body proteins. 5 ref.
176. Saxena, B.S. 1973
(Professor of Fisheries Economics, Central Institute of Fisheries Education, Bombay-400061).
Recent economic trends in fish utilisation. Seafd export. J., 5(12): 9-16.
177. Sebastian, M.J.¹ and V.A. Nair² 1975
(¹Department of Fisheries, Marine Biological Station Kozhikode, Kerala. ²Department of Fisheries, Fresh water Biological Station, Malampuzha Dam (India)).
The induced spawning of the grey mullet, Mugil macrolepis (Aguas) Smith and the large scale rearing of its larvae. Aquaculture, 5(1):41-52. 11 ref.
178. Seshagiri Rao, B.V. 1973
(Department of Zoology, D.N.R. College, Bhimavaram, A.P.)
Diodon holacanthus Linnaeus (Pisces : Diodontidae) from India. J. Bombay nat. Hist. Soc., . 70(2):392-394.
- Morphometric characters of D. holacanthus have been presented. 5 ref.
179. _____ 1975
(Department of Zoology, D.N.R. College, Bhimavaram, A.P.).
Two new records of clupeid fishes, Ilisha kampen and I. sirishae from the Arabian sea. Curr. Sci., 44(14): 526-527. 4 ref.

180. Sheriff, E.M. and M. Appaswamy Rao 1975
 (Department of Zoology, Karnataka University,
 Dharwar - 580003).
 Ulcerogenic effect of steriods in 'Shay' operated toads
Bufo melanostictus Schneider. Indian J. exp. biol.,
13(4):333-336.

The communication highlights the effects of various steriods in 'Shay' operated toad, B. melanostictus. The authors described the toads as good test animals for gastroenterological studies for their higher ulcerogenic effect of steriods due to diminution in mucus secretion and decreased tissue resistance rather than increased hyperacidity. 22 ref.

181. Shirgur, G.A. 1972
 (Taraporevala Marine Biological Research Station,
 Bombay-400002).
 Development of indigenous Derris power. J. Indian Fish.
Ass., 2(1&2):55-59.

The author reports the suitability of Derris elliptica of the Indian stain together with roof of Derris trifoliata for processing and indigenous production of 'Derris' powder, a fish poison, which is workable @ 7-8 ppm/6 hr. 6 ref.

182. _____ 1972
 (Taraporevala Marine Biological Research Station,
 Netaji Subhas Road, Bombay - 400002).
 Observations on efficiency of vertical flow jars (Glass
 and Transparent Polythene) for hatching of major carp
 eggs. Ibid , 2(1&2):90-101.

Efficiency of vertical glass jars and polythene hatcheries were experimented upon by the author from which he concluded that increase of water flow in the jars reduces the hatching time. The author adopted a method of introducing a mosquito net container for the eggs to avoid any escapement due to increased flow of water. 8 ref.

183. Siddiqui, Nina 1975
(Department of Zoology, Aligarh Muslim University, Aligarh).
Effect of feeding, spawning and size on chemical constituents
of the blood plasma of Clarias batrachus (Linn.).
Indian J. exp. Biol. 13(2):203-205. 9 ref.
184. Singh, S.P.¹ and M. Sinha² 1973
(¹Central Inland Fisheries Research Substation, Allahabad.
²Central Inland Fisheries Research Institute, Barrackpore,
West Bengal).
On a collection of fish from a stretch of river Ghaghra.
J. Zool. Soc. India, 25(1&2):152-156.

A systematic list of fishes collected from river Ghaghra
has been presented. 3 ref.
185. Sridhar, M.K.C. and S.C. Pillai 1974
(Department of Biochemistry, Indian Institute of Science,
Bangalore, India).
Urease activity in sewage, sludges and effluents.
Water & Waste Treatment 17(11):32-38.

The paper deals with decomposition of urea and urase
activity in sewage, septic tank sludge and activated sludge. 13 ref
186. Shrinivasachar, H.R., Katre Shakuntala & S.R. Reddy 1972
(Department of Zoology, Bangalore University, Bangalore-
560001).
Feeding and learning behaviour of Puntius ticto (Ham.)
in relation to prey quality. J. Indian Fish. Ass.,
2(1&2):23-25.

Feeding and learning behaviour of P. ticto, an omnivorous
cyprinoid fish in relation to two different types of prey Culex
fatigans and Tubifex tubifex have been dealt with. 6 ref.
187. Sripathy, N.V. 1973
(C.F.T.R.I. Fish Technology Experiment Station,
Mangalore-1).
Transportation of fresh fish. Seafd export. J. 5(12):
17-24. 12 ref.

188. Subrahmanyam, M. 1974
(Central Inland Fisheries Research Institute, Barrackpore, West Bengal).
Migratory behaviour in penaeid prawns. Indian J. Anim. Sci., 44(2):117-123.

Reports in detail the migratory pattern of Penaeus monodon, P. indicus, Metapenaeus monoceros, M. brevicornis, M. dobsonii and M. affinis. Some observations on the migratory behaviour of some other sp. have also been reported. 15 ref.

189. Subramanyam, M. and P.M. Mitra 1975
(Central Inland Fisheries Research Institute, Barrackpore, West Bengal)
A graphic method for weight and count conversions in prawns. Invention Intelligence, 10(6):231-232.

To convert and estimate the catch of graded prawns into whole weight or tail weight, a graphic conversion method, applicable for two prawns Penaeus monodon and P. indicus has been postulated by the authors.

190. Swarup Krishna and Anand Swaroop 1975
(Department of Zoology, University of Gorakhpur).
Sexual dimorphism in Pseudocutropius atherenoides (Bloch). Curr. Sci., 44(16):588p.

Some distinguishing characters of males and females of P. atherenoides have been presented. 3 ref.

191. Talwar, P.K. 1973
(Zoological Survey of India, Indian Museum New Bldg., Calcutta-13).
On Chrionema chryseres Gilbert, a rare bathypelagic fish in the Indian ocean. J. Bombay nat. Hist. Soc., 70(2): 390-392.

Morphometric characters of C. chryseres have been presented. The specimen was caught from the south-west coast of India near Quilon and the author claims it as the first record of the species from Indian waters. 3 ref.

192. Tejam, B.M. and B.C. Halder 1975
(Institute of Science, Bombay).
A preliminary survey of mercury in fish from Bombay and Thana environment. Indian J. Environ. Hlth., 17(1):9-16.

The results of survey for mercury in 30 species of fish collected from 7 sources of Bombay and Thana have been presented. According to the authors bones and muscle of Tilapia mossambica, Mugil dussumieri and some other fish have mercury concentration greater than 500 mg/g on freshweight basis. 3 ref.

193. Tiwari, Krishna Kant and R. Sridharan Pillai 1973
(Zoological Survey of India, Calcutta).
Shrimps of the genus Macrobrachium Bate, 1868 (Crustacea : Decapoda : Caridea : Palaemonidae), from the Andaman and Nicobar islands. J. Zool. Soc. India, 25(1&2):1-35.

Taxonomic account of seven species of Macrobrachium from Andaman and Nicobar islands have been presented in detail. 27 ref.

194. Toor, H.S. and H.S. Gill 1974
(Department of Zoology, Punjab Agricultural University, Ludhiana).
Distribution of fishes in relation to the hydrobiological conditions of the Budha Nala -- a tributary of the river Sutlej. Indian J. Ecol., 1(1):55-62.

Reports the effect of water pollution on the qualitative and quantitative distribution of fishes in the Budh Nala. 14 ref.

195. Tripathi, S.D.¹ and R.K. Saraf² 1974
(¹Central Inland Fisheries Research Institute, Barrackpore West Bengal. ²College of Fisheries, J.N. Krishiviswavidyalaya, Jabalpur)
Relationship of pituitary gland weight with length, body weight and head weight of rohu Labo rohita (Ham.) and mrigal, Cirrhinus mrigala (Ham.). JNKVV Res. J., 8(2):118-122. 8 ref.

196. _____ 1974
 (1 Central Inland Fisheries Research Institute, Barrackpore.
 2 J.N.K. Viswa Vidyalyaya, Jabalpur).
 Predatory role of weed fishes, Vis-a-vis aquatic insects,
 tadpoles and froglets. JNKVV. Res. J. 8(2):123-127.

The authors report that even the weed fishes may feed on the eggs and hatchlings of carps causing considerable damage to carp culture. The feeding propensity of weed fishes vis-a-vis aquatic insects, tadpoles and froglets have also been discussed. 9 ref.

197. Tripathi, S.D.¹ and S.K. Meur² 1972
 (1 Central Inland Fisheries Research Institute, Barrackpore,
 West Bengal. 2 Department of Chemistry, Indian Institute of
 Technology, Kharagpur, West Bengal).
 Biochemical studies on rohu, Labeo rohita (Ham.).
J. Indian Fish. Ass., 2(1&2):75-80.

Biochemical composition of Labeo rohita has been reported. The authors have compared different biochemical parameters both in the males and females of the species. 12 ref.

198. Vaidya, B.S. and Veela B. Mehta 1975
 (Department of Botany, University School of Science,
 Gujarat University, Ahmedabad-9).
 A method of getting bacteria free culture of blue-green
 alga Oscillatoria. Curr. Sci., 44(15): 563 p. 3 ref.

II AUTHOR INDEX

Every author's name appearing in the original article is listed alphabetically, including corporate bodies (societies, organisations etc.), whether occurring as single or multiple words. (Reference is given to the serial no. of the entry).

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200. Alagarswamy, K. 1975
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Fish. Technol., 11(1): 28-33
 The paper deals with the values of thermal diffusivity and conductivity of mackerel and sardine in relation to their moisture content and packing densities. According to authors, thermal conductivity exhibits a linear correlation with packing density and percentage water content. 8 ref.
207. Antony Raja, B.T. 1973
 (Central Marine Fisheries Research Institute, Cochin-18)
Indian J. Fish., 20(2): 599-609. 23 ref.

208. Antony Raja, B.T. 1973
(Central Marine Fisheries Research Institute, Cochin-18)
Oil-sardine in the estuaries of North Kanara.
Indian J. Fish., 20(2): 651-653. 3 ref.
209. Antony Raja, B.T.¹ & M. Vasuder Pai.² 1973
(1. Central Marine Fisheries Research Institute, Cochin-18
& 2. Central Marine Fisheries Research Institute,
Substation, Karwar (N.K.)
On a record of stranded sperm whale, Physeter catodon
Linnaeus, at Karwar.
Indian J. Fish., 20(2): 641-645. 9 ref.
210. Azeez, P.M.A. & K.G.S. Nayar. 1975
(Survey & Research Centre, Department of Fisheries,
Government of Gujarat, Okha)
Ghol-dara fishery of Rupan port (Gujarat) India.
Seafd. export J. 7(6): 25-30

The paper presents the result of three years' observations
on the activities of the gill-net¹ of Rupan port for exploiting
Ghol-Dara fishery. 6 ref. Operators
211. Azeez, P.M.A. & V.J. Thakur. 1975
(Survey & Research Centre, Department of Fisheries,
Government of Gujarat, Okha)
Commencement of large scale commercial harvest of trout
fish resources off Dwarka, Gujarat.
Seafd. export J., 7(7): 21-29. 6 ref.
212. Banerjee, Vivekananda. 1973
(Department of Zoology, Science College, Patna-3)
A biometric study of Puntius sophore (Hamilton) I.
Rate of growth of different body parameters
Proc. Nat. Acad. Sci., India, 43(8) (1&2): 41-44. 8 ref.
213. Bapat, S.V.¹ & S.A. Atawani.² 1973
(1. Central Marine Fisheries Research Institute and
sub-station, Bombay & 2. Directorate of Fisheries,
Maharashtra, Bombay)
The Bombay duck fishery of Maharashtra with special
reference to Versova.
Indian J. Fish., 20(2): 562-574. 11 ref.

214. Bhatnagar, Sneh Lata 1974
(School of Studies in Zoology, Vikram University, Ujjain, M.P.)
Histopathological changes due to copper in Heteropneustes fossilis.
Proc. nat. Acad. Sci., India (B), 44(3): 173-176.

215. Bhatt, V.S. 1974
(National Institute of Oceanography, (CSIR), Don Paula, Panaji, Goa, India)
World fisheries alarms and new hopes.
Seafd. export J., 6(2): 13-19

216. Bose, K.C. & M. Firoz 1974
(Department of Zoology, Ranchi University, Ranchi-834008)
The architectural pattern of adrenal gland of a hill stream teleost, Discoognathus modestus (Ham.)
Indian J. Anim. Res., 9(1): 21-23

Histology of the head kidney of D. modestus has been described. The head kidney in the species consists predominantly of a mass of lymphoid tissue and some ectopic follicles but no renal elements besides glandular adrenal tissue. 15 ref.

217. Chandrapal, G.D. 1975
A review on the warpdepth relationship (scope ratio) in ~~trap~~ fishing
Seafd. export J., 7(7): 15-20. 8 ref.

218. Chaturvedi, L.D. 1974
(Department of Zoology, Hindu College, Moradabad)
Determination of optimum pH for the activity of a few gastric and intestinal proteases and carbohydrases in Rita rita (Ham.)
Agra. Univ. J. Res. (Sci), 23(2): 1-8

The paper deals with the optimum pH for the activity of gastric pepsin, intestinal trypsin, esterase and lipase. 7 ref.

219. Chaudhuri, H. 1975
(Central Inland Fisheries Research Sub-station, Cuttack)
Fish seed production-a prerequisite to intensive freshwater fish culture.
Indian Fmg. 25(6): 13-15

Different methods of production of seeds of Indian and exotic carps have been discussed.

220. Das Bhagwan & M.D.L. Srivastava 1973
(Zoology Department, Allahabad University, Allahabad)
The meiotic chromosomes of certain teleosts. Part I
Proc. Nat. Acad. Sci., India, 43(8) (1&2): 17-25. 9 ref.
221. Das Bhavwan I M.D.L. Srivastava 1973
(Zoology Department, Allahabad University, Allahabad)
The meiotic chromosomes of cartain Indian teleost, Part II
Proc. Nat. Acad. Sci., India, 43 (8) (1&2): 29-40. 51 ref.
222. David, A¹, K.V. Rajagopal² & K. Gopinathan³ 1973
(1. Tank Fisheries Research Unit of CIFRI, Bangalore-1,
2. Fisheries College, University of Agricultural Sciences,
Mangalore-2 & 3. Pulicat Lake Unit of CIFRI, 19-A Patel
Road, Madras-11)
Experimental observations on subsurface and bottom fishing
in the Tungabhadra reservoir.
Proc. Nat. Acad. Sci., India, 43(8)(4): 237-248. 14 ref.
223. Dehadrai, Padmakar, V. 1975
(Coordinated Project on Culture of Air-breathing Fishes in
Swamps, Central Inland Fisheries Research Institute,
Barrackpore, West Bengal)
Derelict waters for air-breathing fish culture.
Indian Fmg., 25(6): 19-20

Culture of air-breathing fishes in derelict water bodies
which remain unutilised otherwise, has been discussed. Names of cultu-
rable species of air-breathing fishes & their chemical composition
Difficulties faced in culture of air-breathing fishes in derelict
waters have also been discussed. / have been presented.
224. Deshmukh, V.M. 1973
(Central Marine Fisheries Research Institute Sub-station,
Bombay-1)
Fishery and biology of Pomadasys hasta (Bloch)
Indian J. Fish., 20(2): 497-522. ref. 23
225. Devadoss, P. & P.K. Mahadevan Pillai 1973
(Central Marine Fisheries Research Institute, Research Centre
Porto Novo)
Observations on the food of juveniles of Psettodes erumei
(Bloch).
Indian J. Fish., 20(2): 664-667. 5 ref.

226. Devaraj, K. V. 1975

(College of Fisheries, Mangalore-575002)

Culture of air-breathing fishes.

Seafd. export J., 7(4): 35-40

The author has given an account of live fish culture in India and has described the biology, breeding and culture of the common live fishes like the murels, the catfishes, the climbing perch and the giant gourami.

227. Devaraj, M. 1973

(Central Marine Fisheries Research Institute, Regional Centre, Mandapam Camp)

Biology of the large snake-head Ophicephalus marulius (Ham.) in Bhavanisagar waters

Indian J. Fish., 20(2): 280-307

Food and feeding habits, length-weight relationship, stages of maturity, fecundity, spawning cycle and periodicity etc. in Ophicephalus marulius have been discussed. According to the author the spawning occurs during November and December in the swamp but during June & July in the reservoir and rivers. The parental care ceases when the young ones become 4-months of age. Young fry feed upon zooplankton while fishes above 50 mm thrive on Macrobrachium spp.

228. Dhulkhed, M. H. & S. Ramamurthy 1973

(Central Marine Fisheries Research Institute, Sub-station, Mangalore)

On the occurrence of small-sized oil sardine in the Chandragiri estuary, South West Coast of India.

Indian J. Fish., 20(2): 653-654. 3 ref.

229. Durve, V.S.¹ and K.V. George²

(1. University of Udaipur, School of Sciences, Udaipur Rajasthan & 2. Central Marine Fisheries Research Institute, Regional Centre, Mandapam Camp)

Some observations on the index of condition of the clam Meretrix casta (Chemnitz) in relation to mud and water qualities.

Indian J. Fish. 20(2): 326-332

The authors have compared the physiological condition of M. casta in relation to pH, salinity, DO, total and organic phosphates, silicates, nitrites, calcium and varying coarseness of the mud of the experimental ponds with the natural clam beds in Athankarai estuary. 15 ref.

230. Durve, V.S. 1973

(Department of Zoology, University of Udaipur, Udaipur
Rajasthan)

Malacological differences between the Oysters Crassostrea gryphoides (Schlotheim) and Crassostrea madrasensis Perstom

Indian J. Fish., 20(2): 624-625. 9 ref.

231. Dwivedi, D.K. 1972

(Department of Zoology, University of Saugar, Saugar
(M.P.), India)

Studies on the rate of colour change mechanism in the teleost Rasbora daniconius (Ham.)

Proc. Nat. Acad. Sci., India, 42 (B)(2): 175-187

The paper deals with the relation between the time taken and complete paling or complete darkening of the fish R. daniconius (Ham.). The process of aggregation of melanin in a particular melanophore has also been studied. 23 ref.

232. Ganguly, D.N., N.C. Datta & S. Sen 1972

(Department of Zoology, Calcutta University, Calcutta-19, India)

Two new catfishes of the genus Glyptothorax Blyth (Family: Sisoridae) from Subarnarekha river, Bihar, India.

Copeia, No. 2: 240-344

Glyptothorax nelsoni & G. coheni, two new species of sisorid catfishes, are described from the Subarnarekha river, Bihar. G. nelsoni and G. coheni been compared with their closest known /have relatives, G. striatus and G. saisii respectively. 3 ref.

233. Ghadi, S.V., V.N. Madhavan and U.S. Kunta

(Biochemistry and Food Technology Division, Bhabha Atomic Research Centre, Bombay-400085, India)

Diversification in utilisation of trash fish by Gamma irradiation.

Fish. Technol., 11(2): 108 : 116

The authors report that radiation pasteurisation enhances the shelf stability of trash fish and enables the grading of fish/terms of freshness. It was found that a dose of 100 krad helps in maintaining the quality in grade I, II or III upto 10, 20 or 25 days respectively as against iced fish which/spoiled within 8-10 days. 24 ref.

/in
/get

234. George, Chinnamma 1974

(Central Institute of Fisheries Technology, Cochin-682011)

Technological aspects of preservation and processing of edible shell fishes. V. Cold storage changes in mussels (Mytilus edulis) and clams (Villortia sp.) Fish. Technol., 11(1): 22-27.

Information on the freezing characteristics of shell fishes is rather scanty. The present communication summarises the results of investigations carried out in this direction with M. edulis and Vallortia sp. as test animals.

235. George, M.S. 1974

A glimpse over the world pink shrimp fishery to that of the Indian deep sea and methods of its handling and processing.

Seafd. export J., 6(4): 27-38.

The paper deals with the availability of pink shrimp in Indian waters. The author also discussed different methods of handling and processing of pink shrimp. 6 ref.

236. George, V.C., Nayar Gopalan, S. and Iyer Krishna, B.

(Central Institute of Fisheries Technology, Cochin-682005)

Mesh regulation in backwater prawn fishing gear. Fish. Technol., 11(2): 117-128

The authors describe the size grade composition of prawns of different species caught by backwater prawn fishing gear of Kerala with their relative economics. They also recommended the mesh size for make nets from 20 to 25 mm. 6 ref.

237. Ghosh, Aputba 1973

(Central Inland Fisheries Research Institute, Barrackpore, West Bengal)

Observations on the larvae and juveniles of the 'Bhekti' Lates calcarifer (Bloch) from the Hooghly-Matlah estuarine system.

Indian J. Fish., 20(2): 372-379. 11 ref.

238. Ghosh, H.C. 1975

(Zoological Survey of India, Calcutta-13, India)
A new species of Manningia (Stomatopoda, Gonodactylidae)
from the Andaman Islands.
Crustaceana, 28(1): 33-36

239. Ghosh, K.K.¹, M. Sinha² & N.K. Srivastava³ 1972

(1 & 2. Central Inland Fisheries Research Institute,
Barrackpore, West Bengal & 3. Central Inland Fisheries
Research Sub-station, Allahabad, U.P.)

Mass marking of carp hatchlings by biological stains.
Proc. Nat. Acad. Sci., India 42 (8)(4): 423-430

The authors used five types of biological stains for
marking the healthy carp spawn (5-10 mm size). Bismark Brown Y at
dilution of 1:25,000 for 5 hours was found to be the best with no
toxic effect and with refuntion capacity for over 24 hours. 5 ref.

240. Ghosh, K.K., M. Sinha and N.K. Srivastava 1973

(Central Inland Fisheries Research Sub-station,
Allahabad)

On the escapement of carp hatchlings from shooting nets.
Indian J. Fish., 20(2): 395-410

The paper presents the assessment of escapement of carp
hatchlings from 1/8", 1/12" and 1/16" meshed cotton shooting net by
using cod-end cover and the known population method. It is also
observed that the water current velocities less than about 16 cm/se-
cond is likely to be uneconomical and the hatchlings entering at the
corners of the net escaped much more than those entering in Central
portion. 26 ref.

244. Gill, H.S. and H.S. Toor 1975

(Department of Zoology, Punjab Agricultural University,
Ludhiana)

Toxicity of the sewage effluents of the Ludhiana city
to fish in the Budha Nullah.

Indian J. Ecol., 2(1): 87-93

The physical reactions of the fish in the uncontrolled
discharge of sewage and industrial effluents of the Ludhiana city
discharged into the Budha Nullah, results in the excitation loss of
equilibrium. The safe concentration of the effluents to fish (Puntius
licto (Ham) was found to be 5.16 per cent. 18 ref.

242. Gore, P.S. 1974

(Regional Centre of National Institute of Oceanography,
Post Box 1913, Cochin-682018)

Bacteria in the inshore environment of Karwar and
Vengurla.

Fish. Technol., 11(1): 34-42

The communication embodies the results of observations on the distribution, both qualitatively and quantitatively, of marine bacterial population inhabiting surface seawater, at a depth range of 13-14 mm and mud from inshore water at Vengurla and Karwar along the Central West Coast of India.

243. Goswami, Usha 1975

(National Institute of Oceanography, Dona Paula, Panaji,
Goa)

Prawns : how to increase their production.

Sci. Repr., 12(11): 530-532 & 567

244. Govindan, T.K.

(Central Institute of Fisheries Technology Substation,
Kakinada-533002)

Freeze drying (of fishery products: Part IV -

Biochemical changes occurring in prawn muscle during
freezing, freeze drying and prolonged storage of the
freeze dried product.

Fish. Technol., 11(2): 145-150

The author indicates that practically no denaturation takes place in the prawn muscles due to freeze drying with respect to water extractable proteins. He also reports that the freeze dried products can be kept in good edible condition upto 32 months of storage. 10 ref.

245. Hakim, V.M.A. 1975

(National Institute of Oceanography, Goa, India)
Fish shoals.

Seafd. export. J. 7(7): 31-32

246. Jacob, P.G. 1974
Fish silage - a valuable product from fish waste and trash fish.
Seafd. export. J., 6(12): 39-41
247. Jacob, P.G. 1975
(National Institute of Oceanography, Panaji, Goa)
The smallest and the biggest useful fishes.
Seafd. export. J., 7(10): 27-29
Describes the smallest edible fish i.e. Mistichthys luzonensis or Sinarapan and the biggest marine shark Rhincodon typus.
248. Jayaprakash, A.A. 1973
(Central Marine Fisheries Research Substation, Bombay)
A note on the use of vertebrae of 'Moth' Otolithoides branneus (Day) as age indicators.
Indian J. Fish., 20(2): 681-683
249. Jayachandran, P. and Samud Paul Raj 1975
(Department of Fisheries Science, Tamil Nadu Agricultural University, Coimbatore 641005)
Mercuray in fish from Mettur reservoir.
Curr. Sci., 44(22): 828-829
Mercury load in different species of fish like, Mystus aor Notopterus notopterus, Labeo rohita, L. calbasu, Cirrhinus mrigala Rhimomugil corsula, Puntius sarana etc. collected from Mettur reservoir has been described. 2 ref.
250. Jhingran, A.G.¹ & D.N. Verma² 1972
(1. Central Inland Fisheries Research Substation, 24, Pannalal Road, Allahabad & 2. Department of Zoology, University of Allahabad, Allahabad, India)
Sexual maturity and spawning of Gadusia chapra (Ham.)
Proc. Nat. Acad. Sci., India 42(8)(2): 207-224
The paper presents the seasonal changes in gonadial condition, spawning season, sex-ratio, size at first spawning etc. of G. chapra, based on the examination of reproductive organs. The spawning season extends from March-October with peak from April-June. The fish spawns more than once in a season. 25 ref.

251. Jhingran, V.G. 1975
(Central Inland Fisheries Research Institute, West Bengal)
Scope and role of inland aquaculture in India's economy
Indian Fmg. 25 (6): 10-11
- k/ Production potential of freshwater and brackishwater aquaculture in India has been discussed. The role of aquaculture in India's economy with special reference to rural development has also been discussed.
252. Joshi, S.C. & H. Swarup 1974
(School of Studies in Zoology, Vikram University, Ujjain, M.P.)
Standard oxygen consumption of an aquaculture teleost, Barbus ticto and a comparison with amphibious fishes.
Proc. nat. Acad. Sci. India (B), 44(3): 167-172
253. Kant, Shashi¹ & P. Kachroo² 1975
(1. Department of Bio-Sciences, University of Jammu, Jammu-180001 & 2. Department of Botany, University of Kashmir, Srinagar-190006)
Limnological studies in Kashmir lakes-II Diurnal movements of phytoplankton.
J. Indian bot. Soc. 54(1&2): 9-12
254. Karbhari, J.P. 1973
(Central Marine Fisheries Research Institute Unit, Veravalur)
Stranded fin whale, Balaenoptera physalus (Linn.) off Magdalla (Surat)
Indian J. Fish. 20(2): 639-640
255. Karbhari, J.P. 1973
(Central Marine Fisheries Research Institute Unit, Veravalur)
A note on a giant saw fish, Pristis microdon Latham from the river Tapti at Surat.
Indian J. Fish., 20(2): 677-678
256. Khan Ahmed Anwar, R.M. Naidu & G. Narayanappa 1974
(C.I.F.T. Sub-station, Burla)
A note on an abnormal catch of Catla catla in Hirakund reservoir.
Reports an abnormal catch (405.0 kg) of C. catla obtained in a day's operation at Hirakund reservoir which, according to authors, is more or less equal to the usual annual landing of the species from the source. The authors also listed Silondia silondia, Labo fimbriatus, Cirrhitina mrigala and Catla catla as the species predominating the catch of the reservoir. 1 ref.

57. Kartha, K.N., V.C. George & K. Radhalakshmi 1974

(Central Institute of Fisheries Technology, Cochin-5)

On the comparative efficiency of trawls made of Cotton, Polyethylene and combination of both the materials.

Fish. Technol., 11(1): 43-49

The contribution highlights the merits and demerits of three fishing gears, made of cotton, polyethylene and combination of both the materials, ascertained on the basis of cost involved, durability and fishing efficiency. Eventhough the authors observed no difference in the efficiency between polytheylene net and combination net they expressed preference to pllythylene net which according to them, is having slight edge over the combination net from the point of view of economy. 10 ref.

258. Khanna, P. 1973

(Department of Civil Engineering, Roorkee University, Roorkee, India)

Enumeration and differentiation of water bacteria with phsphorus-32. Wat. Poll. Contr. Fed., 45(2): 262-268

The details of rapid tests evolved for ennmerating total & differential populations of bacteria are proposed and their applicability to bacterial species of public health importance and to surface & underground sources of water discussed. The author has attempted to achieve an equilibrium condition between test organisms and phosphorus by incorporating carrier phosphorus in substrate. 11 ref.

259. Khanna, S.S. & Rajni Sanwal 1972

(Department of Zoology, D.S.B. Government College, Nainital)

Influence of long and short photoperiods on the teslicular cycle of Channa gachua. Proc. Nat. Acad. Sci., India, 42 (B) (2): 122-130

A proper combination of temperature and photoperiod may be more important in regulating the seasonal changes in the testes of Channa gachua. The authors observed that light seems to play an important part in spermatogenesis but increased photo-period delayed the maturation process and full maturation was reached in June. 23 ref.

260. Khanna, S.S.¹ & S.D. Bhatt² 1972
 (1. Principal, Government Post-graduate College, Pithoragarh &
 2. Department of Zoology, D.S.B. Government College, Nainital)
 Studies on the blood glucose level and glycogen content in
 some organs of a freshwater teleost Clarias batrachus (Linn.)
Proc. Nat. Acad. Sci., India 42(B)(4): 415-422

The blood glucose level of C. batrachus ranges from 32-120 mg/1 in normal specimens. The authors have not found any definite seasonal change of glycogen content & blood glucose level. But the liver glycogen increase during the spawning time. 22 ref.

261. Kumaraguru, A.K. & V.K. Venugopalan 1976
 (Centre of Advance Study in Marine Biology Porto Novo 608502,
 Tamil Nadu)
 Mercury in the milien. Seafd. export. J., 8(12): 25-35

The paper gave an account on the contamination of the environment by the heavy metal mercury. An elucidation of Mercury content of water, sediments, serls and fish in added. The occurrence of mercury in man and the effects of murcurial poisoning are also discussed. 33 ref.

262. Kurup, P.G. 1974
 (National Institute of Oceanography, Dona Paula, Goa-403301)
 Coastal zone management problems and prospects for Kerala.
Seafd. export. J., 6(12): 43-48

263. Kuthalingam, M.D.K., G. Luther, P. Livingston & V. Sriramachandra Murty 1973
 (Central Marine Fisheries Research Institute, Sub-station, Vizhinjam)
 Further occurrences of the whole shark, Rhincodon typus Smith in thē Indian Coastal waters.
Indian J. Fish., 20(2): 646-651. 10 ref.

264. Kuthalingam, M.D.K. 1975
 (Central Marine Fisheries Research Institute, Sub-sation, Vizhinjam)
 Observations on mariculture research in the United Kingdom.
Seafd. export. J., 7(10): 19-26

The author describes the shell fish cultivation broadly the work on mariculture being done at the different laboratories in the United Kingdom. He feels that recent trends in shell fish research which has been directed towards methods of using new resources of seed and means of improving natural settlement may be followed in India for increasing the export it marine treatments.

265. Kutty, M.N.¹ & M. Peer Mohamed² 1975
 (1. Department of Biological Sciences, Madurai University, Madurai, India & 2. Central Inland Fisheries Research Institute, Barrackpore, West Bengal, India)
 Metabolic adaptations of mullet Rhinomugil corsula (Ham.) with special reference to energy utilisation. Aquaculture, 5(3): 253-270

Influences of random activity on metabolism, ambient oxygen on metabolism and random activity, metabolism and random activity of R. corsula under hypoxia etc. have been dealt with. The R.Q. values of R. corsula in air saturated water at 30 and 35°C are reported to be 0.91 and 0.95 respectively. The R.Q. and A.Q. values of the fish increase with decrease in ambient oxygen indicating an increase in anaerobic metabolism & protein utilisation. 33 ref.

266. Luther, G. 1973
 (Central Marine Fisheries Research Institute, Cochin-18)
 Observations on the biology and fishery of the Indian mackerel Rastrelliger kanagurta (Cuvier) from Andaman Islands. Indian J. Fish., 20(2): 425-447

267. Madhavan, P. & K.G. Ramchandra Nair 1974
 (Central Institute of Fisheries Technology, Cochin-682011)
 Utilisation of prawn waste-isolation of chitin and its conversion of chitosan. Fish. Technol., 11(1): 50-53

Chitosan, a high molecular weight polymer of amino D-glucose is widely known for its varied application in the various industries. The present paper describes a simple process for preparation of chitosan from prawn waste. It also presents an account of extraction of protein available in the protein waste, 7 ref.

268. Madhavan, P., T.S. Unnikrishnan Nair and K.K. Balachandran 1974
(Central Institute of Fisheries Technology, Cochin-682011)
A review on oil sardine I. Distribution, preservation
and transportation.
Fish Technol., 11(2): 88-92

The distribution, landing, fishing, utilisation, preservation
and transportion of oil sardine, Sardinella longiceps, valen in India
are presented. 9 ref.

269. Madhavan, P., T.S. Unnikrishnan Nair and K.K. Balachandran 1974
(Central Institute of Fisheries Technology, Cochin-682011)
A review on oil sardine II. Preservation by canning, curing
and smoking.
Fish. Technol., 11(2): 93-101

The commercial processing of oil sardine in India is reviewed.
12 ref.

270. Madhavan, P., T.S. Unnikrishnan Nair and K.K. Balachandran 1974
(Central Institute of Fisheries Technology, Cochin-682011)
A review on oil sardine III. Oil and meal industry.
Fish. Technol., 11(2): 102-107

The sardine oil industry and fish meal production in India
is given. 17 ref.

271. Malhotra, J.C., P.K. Mathur, S.N. Mehrotra and M.Y. Kamal 1973
(Central Inland Fisheries Research Sub-station, Allahabad-
U.P., India
Successful rearing of Hilsa ilisha (Ham.) in confined fresh-
water for over two years.
Proc. nat. Acad. Sci., India, 43 B (3): 207-210

Hilsa hatchlings (2.5-3.0 mm) produced through stripping at
Ganga were stocked @ 1.4 lakhs per pond in three nursery ponds. The
growth of the hatchlings to an average length of 155.9 mm at the end
of one year and 320.5 mm at the end of second year in confined fresh-
water in U.P. were observed. 19 ref.

272. Mathen, Cyriac 1974
(Central Institute of Fisheries Technology, Cochin-11)
Quality control in Indian Fish Processing Industry.
Fish. Technol., 11(1): 1-16

Various aspects of quality control and its role for the upliftment of the status of processed fish products in the international market have been discussed. The author has also suggested future line of action for further improvement of quality control programmes in the fish processing industry in the country. 47 ref.

273. Mathew, C.V.¹ & V. Sumitra² 1973
 (1. Central Marine Fisheries Research Institute; Sub-station West Hill, Calicut-5 & 2. Central Marine Fisheries Research Institute, Cochin-18)
 Oxygen consumption in some tropical fishes.
Indian J. Fish., 20(2): 658-663. 8 ref.
274. Menon, N. Gopinatha 1973
 (Regional Centre of Central Marine Fisheries Research Institute, Mandpam Camp)
 Note on a specimen of Tachysurus platysomus without pelvic fins.
Indian J. Fish., 20(2): 679-681. 6 ref.
275. Misra, G.¹ & G. Tripathy² 1975
 (1. Orissa State Bureau of Textbook Preparation & Production 367 Saheed Nagar, Bhubaneswar-751007, Orissa & 2. Department of Botany, Ravenshaw College, Cuttack-3)
 Studies on the control of aquatic weeds of Orissa. II. Effect of chemical herbicides on some aquatic weeds.
J. Indian bot. Soc. 54(1&2): 65-71
276. Mohandas, A. 1974
 (Department of Zoology, Mar Ivanios College, Trivandrum-695015, Kerala (India))
 Studies on the freshwater cercariae of Kerala biology II. Emergence, behaviour and Viability of cercariae.
Proc. nat. Acad. Sci., India (B), 44(3): 139-144
277. Mohanty, S.K. 1974
 (Chilka Biological Research Station, Balugaon (Orissa). Preliminary study on the rearing of Chilka prawn ('Kamtala') Penaeus indicus H. Milne - Edwards in the brackishwater ponds at Keshpur (Orissa)
Fish. Technol., 11(1): 54-59

Results of the preliminary observations in the survival rate of growth, food and feeding habits of Penaeus indicus reared, ponds at Keshpur have been presented. In view of fasten average growth rate (14.28 mm/month) with 63% survival achieved in course of present study, the author considers the prevailing ecological conditions at and around Chilka as to be conducive for a successful prawn farming. 12 ref.

278. Muddauna, V¹ and H.N. Chandrnsekharaiiah² 1973
 (1. Fisheries Research Station, University of Agric. Seicra, Hebbal, Bampalare-24 & 2. Department of Fisheries, Baufalore-1).
 Qualitative and quentitative variation in fish catches in important commercial fishing nets in Ballandur tank near Bangalore.
Indian J. Fish., 20(2): 380-394. 6 ref,
279. Mutcaddi, K.B. & D.V. Bal 1973
 (Kirti College, Bombay-28)
 Gobies from the intertidal region of Bombay.
Indian J. Fish., 20(2): 476-486. 16 ref.
280. Nair, G. Sivankutty 1973
 (Depattment of Marine Sciences, Cochin-16)
 Observations on the oil sardine fishery at Ayiromthengu (Alleppey District)
Indian J. Fish., 20(2): 417-424. 13 ref.
281. Nair, P.V. Ramachandran 1974
 (Central Marine Fisheries Research Institute, Cochin-18, Kerala, India)
 Pollution of the aquatic environment.
Seafd. export. J., 6(2): 7-11
 The author discussed about the nature of water pollution in India and different sources of water pollutants. 3 ref.
282. Nair Ramachandran, K.G. & P. Madhavan 1974
 (Central Institute of Fisheries Technology, Ernakulam, Cochin-682011)
 Shark fin rays-technology of extraction.
Fish. Technol., 11(1): 60-63
 A method for extraction of rays from shark fins has been communicated. The process involves treatment of rays with acetic acid which facilitates the subsequent separation by hand.

283. Nair, R.V. 1973
(Central Marine Fisheries Research Institute, Cochin-18)
On the export potential of elvers and cultured eels from India.
Indian J. Fish., 20(2): 610-616. 16 ref.
284. Nair, R.V. & K. Dorairaj 1975
(Central Marine Fisheries Research Institute, Cochin)
Eel Culture.
Indian Fmg., 25(6): 25-27
Techniques of culture of eels : Anquilla bicolor and A. bengalensis have been presented. Presents status and future prospects of eel culture in India have also been discussed.
285. Nair, R.V., K.H. Mohamed & P. Bensam 1975
(Central Marine Fisheries Research Institute, Cochin)
Prawn and fish culture for increased yields.
Indian Fmg., 25(6): 28-33
Deals with marine prawn culture and traditional way of prawn raising in impoundments with a reference to suitable species of prawns for culture. Authors have also dealt with the problems of brackishwater farming in India in the context of foreign efforts in the line. The paper also deals with artificial spawning of prawn and the prospect of prawn fishery.
286. Nair, R.V. & N. Kaliapersumal 1975
(Central Marine Fisheries Research Institute, Cochin)
Sea weed culture.
Indian Fmg., 25(6): 38-39
Distribution and utilisation of sea weeds have been given. Methods of seaweed culture and experimental culture of agarophytes have been discussed. The authors opine that large scale culture of seaweeds in coastal waters of India will offer employment to people living along the coastal region of the country.
287. Nair, R.V. & K.K. Appukuttan 1973
(1. Central Marine Fisheries Research Institute, Cochin-18
& 2. Central Marine Fisheries Research Institute, Madapam Camp)
Observations on the food of deep sea sharks Halaaelurus hispidus (Alcock), Eridacnis radcliffei smith & Iago omanensis compagno and springer.
Indian J. Fish., 20(2): 575-583

288. Nair, R.V.¹, R. Soundararajan² & K. Dorairaj³ 1973
 (1. Central Marine Fisheries Research Institute, Cochin-18,
 2 & 3 Central Marine Fisheries Research Institute,
 Regional Centre, Mandapam Camp)
 On the occurrence of Panulirus longipes longipes,
penicillatus and Panulirus polyphagus in the Gulf of Manner
 with notes on the lobster fishery around Mandapam.
Indian J. Fish., 20(2): 333-350
- The paper dealt with detailed description of spiny lobsters together with their synonyms, distribution, habitat and sexual dimorphism. The occurrence of the lobsters is also reported for the 1st time from the South-east coast of India. 39 ref.
289. Nair Unnikrishnan, T.S., P. Madhavan, K.K. Balachandran & P.V. Prabhu
 (Central Institute of Fisheries Technology, Cochin-682011)
 Canning of oil sardine (Sardinella longiceps) - Natural pack
Fish. Technol., 11(2): 151-155
- The paper describes a simple and economic process for canning oil sardine in its own juice having very good organoleptic characteristics. 6 ref.
290. Nama, H.S. 1972
 (Department of Zoology, University of Jodhpur, Jodhpur)
Cylindrotaenia roonwali Sp. N. (Cestoda: Nematotaeniidae)
 from Rana cyanophlyctis.
Proc. Nat. Acad. Sci., India 42(8)(3): 335-337. 2 ref.
291. Nambiar Narayanan, N.P.K. Surendran & K. Mahadeva Iyer
 (Central Institute of Fisheries Technology, Ernakulam,
 Cochin-682011)
 Morphological, biochemical and growth characteristics of
Serratia strains isolated from sardine (Sardinella longiceps)
Fish. Technol., 11(2): 129-136
- The morphological, biochemical and growth characteristics of two bacterial strains isolated from oil sardine. Effect of temperature and certain carbohydrates on pigmentation was also reported. 11 ref.
292. Narayanappa, G.¹, Y. SreeKrishna² & K.A. Sadanandan³
 (1. Central Institute of Fisheries Technology, Burla, Orissa,
 2. Offshore Fishing Station, Calcutta & 3. Central Institute
 of Fisheries Technology, Panaji, Goa.
 On the resources of demersal fishes from bottom trawling in
 inshore waters off Kakinada by small mechanised boats.
Fish. Technol., 11(2): 137-141

The authors attempted to assess the available resources of demersal fishes from bottom trawling in inshore waters. They reported that the average catch per hour was 52.79 Kg for 9.13 m (30') OAL mechanised boat. They also indicated that the catch rate is increasing with the increase in depth of fishing. 9 ref.

293. Natarajan, A.V. 1975

(All India Coordinated Research Project on Ecology and Fisheries of Freshwater Reservoirs, CIFRI, Hazaribagh)
Fish farming in man made lakes.
Indian Fmg., 25(6): 24 & 33

Fish farming in man made lakes has assumed considerable importance from the point of view of nutritional problems. Bio-ecological conditions these water bodies, suitable species for culture and cultural techniques in man made lakes have been dealt with in the article.

294. Neelakantan, B. 1975

(Marine Biology Division, Post Graduate Department of Zoology, Karnatak University, Dharwar-3, India)
Food and feeding habits of the northern shrimp, Pandalus borealis from the Oslofjord.
Seafd. export J., 7(6): 31-36

The paper presents the various food components in juvenile and adults of the shrimp, Pandalus borealis. It also suggests that the main food were the organisms of crustacean origin. 7 ref.

295. Nigam, Harish C. 1975

(Zoology Department Lucknow Christian College, Lucknow, India)
The structure and function of the truncus arteriosus in Rana tigrina (Daud)
Curr. Sci., 44(22): 810-812

The structure and functions of the truncus arteriosus of Indian bull frog Rana tigrina have been presented with special reference to the flow blood. 6 ref.

296. Pandey, A.K. 1972

(School of Studies in Zoology, Vikram University, India)
Influence of experimental hypo - and hyperthyroidism on the histoanatomy of liver in Rasbora daniconius (Teleostei)
Proc. Nat. Acad. Sci., India 42(8)(4): 406-414

The physiological conditions of thyroid tissue through the use of thiourea, thiouracil, neomercazole and thyroxine is dealt with. Chemical thiroidectomy in R. daniconius affected the liver in different degrees of the treated fish. 26 ref.

297. Parameswaran, K. 1974
(Asstt. Director of Fisheries, Department of Fisheries, Kerala, India)
Is there depletion of prawn fisheries in Kerala
Seafd. export. J., 6(2): 21-22
The total prawn landings of Kerala with merits and demerits is discussed.
298. Patnaik, S. 1973
(Central Inland Fisheries Research Sub-station, Cuttack, India)
A study of the aquatic plants of Chilka Lake.
Proc. Nat. Acad. Sci., India, 43(8)(1&2): 53-65. 29 ref.
299. Perumal, M.C., P.S. Joy & V. Narayana Pillai 1974
(Central Institute of Fisheries Operations, Cochin-16)
Observations on the trawl fish catches in the shallow waters off the South West coast of India 1969-1972.
Seafd. export. J. 6(12): 11-34. 19 ref.
300. Pillai Ayyappan, S.
(Central Institute of Fisheries Technology, Cochin-682011)
Design of refrigerated sea water plant for preservation of fish.
Fish. Technol., 11(2): 142-144
The design of a pilot model to study the feasibility of employing refrigerated sea water on board fishing vessels for fish preservation. This method has also some important advantages over the ice storage. 2 ref.
301. Pillai, N. Krishna 1973
(Department of Aquatic Biology and Fisheries, University of Kerala, Trivandrum-7)
Three new bomolochids parasitic on fishes of the Kerala coast.
Indian J. Fish. 20(2): 487-496. 16 ref.

302. Pillai, V. Narayana & P.V. Samuel 1974
 (Central Institute of Fisheries Operatives, Cochin, India)
 Training of fisheries operatives personnel in India.
Seafd. export. J. 6(9): 41-44
 The informations on the training programmes offered in India to the persons interested in fisheries operatives is discussed.
303. Pillai, V.K. and K.V. George 1974
 (Central Marine Fisheries Research Institute, Cochin, India)
 The prawn fishery resources of Cochin backwaters.
Seafd. export J., 6(9): 33-39
 The capture and culture fishery resources of prawn from Cochin backwaters in given.
304. Prasad, R Raghu 1975
 (Indian Council of Agricultural Research, New Delhi)
 Intensify research to solve specific problems.
Indian Fmg., 25(6): 7 & 9
 Deals with the present status of aquaculture in India and developmental prospect of water resources.
305. Qasium, S.Z.
 (Central Marine Fisheries Research Institute, Cochin-18)
 Some implications of the problem of age and growth in marine fishes from the Indian waters.
Indian J. Fish., 20(2): 351-371
 Various methods to study the age and growth of some marine teleosts are discussed and suggested that the Bsverton Holt approach and shaefer approach can be considered for this purpose. 93 ref.

306. Qasium, S.Z.¹, Sumitra Vijayaraghavan² and D.C.V. Easterson³
 (1. National Institute of Oceanography, Miramar, Panaji, Goa, 2&3. Central Marine Fisheries Research Institute, Cochin-18)
 Caloric values of the ingested food of some marine fishes and prawns.
Indian J. Fish., 20(2): 318-325
 Three different methods viz., (i) Organic carbon (ii) Karzinkin and Tarkovskaya method and (iii) Bomb calorimetry are tried to measure the caloric values of the stomach content of some fishes and prawns. 9 ref.
307. Radha, M, R. George Michael and S. Krishna Swamy 1975
 (Department of Biological Sciences, Madurai University, Madurai)
 The use of different filters for separating the suspended organic matter from the dissolved carbohydrate content in four different freshwater ponds.
Indian J. Ecol., 2(1): 75-78
 The highly turbid nature of shallow tropical ponds suggests that the separation of the suspended matter from the dissolved matter can be achieved at different levels by using filter. The bacterial filter has been found to bring about complete separation. Prior hydrolysis is suggested for separating the mucopolysaccharides and other complex sugars. 6 ref.
308. Radhakrishnan, N. 1973
 (Pelagic Fishery Project, Post Box No. 1791, Cochin-16)
 Pelagic fisheries of Vizhinjam.
Indian J. Fish., 20(2): 585-598. 10 ref.
309. Raghunathan, M.B. 1974
 (Zoological Survey of India, Madras)
 Edible molluscs of India.
Seafd. export. J., 6(9): 29-32
 A comprehensive and consolidate list of edible species or profitably exploited species is described, which is not readily available in literature.

310. Rama Rao, K.V. 1969
 (Zoological Survey of India, Calcutta)
 On collections of shore fishes from the coromandal coast, Palk Bay and Gulf of Mannar.
Rec. Zool. Surv. India, 67(1-4): 15-57
- Systematic account and geographical distribution of fish species, collected off coromandel coast, Palk bay and Gulf of Mannar during the years 1955, 196-62, have been dealt with. 3 ref.
311. Ranjan, A. 1974
 (Deep Sea Fishing Station, Bombay)
 Modification to the Bilge and seawater pumps fitted in 17.5 m jingha type trawlers.
Fish. Technol., 11(1): 64-66
- Besides bringing out difficulties with the Bilge and seawater circulating pumps fitted in a fishing trawler, the details of modification effected and the results of trails conducted have also been presented in this paper.
312. Ranoemihardjo, B.S., A. Poernomo and K.H. Alikunhi 1975
 (Project Manager, FAO/UNDP Brackishwater Water Shrimp and Milkfish Culture Applied Research and Training Project, Shrimp Culture Research Centre, Jepara, Indonesia)
 Observations on milkfish culture in deep water, encouraging plankton growth.
Bull. Shrimp Cult. Res. Cent., 1(1): 12-18
313. Rao, B.V. Seshagiri 1973
 (Department of Zoology, D.N.R. College, Bhāmavaram 534201, A.P., India)
 Redescription of the clupeid fishes, Ilisha megalopectera and I. melastoma.
Copeia, No. 4: 735-739
- The paper deals with the identification of two clupeid fishes, Ilisha megalopectera and Ilisha melastoma, collected from Visakhapatnam. The author has redescribed the two species and compared them with the earlier description given by Russel. 13 ref.

314. Rao, B.V. Seshagiri 1972
 (Department of Zoology, D.N.R. College, Bhimavaram, A.P.)
 Identity of the Clupeid fishes Ilisha megaloptera and
Ilisha indica.
Copeia, No. 4 : 881-882
 Deals with the identification of certain clupeid fishes
 like Ilisha megaloptera and I. indica. 6 ref.
315. Rao, K. Satyanarayana¹ and K.G. Girijavallabhan² 1973
 (1. Regional Centre of Marine Fisheries Research Institute,
 Mandapam Camp & 2. Central Marine Fisheries Research
 Institute, Sub-station, Madras)
 On the eggs and larvae of an engraulid and two carangids
 from Madras plankton.
Indian J. Fish., 20(2): 551-561. 17 ref.
316. Rao, K. Satyanarayana¹ and S. Basheeruddin² 1973
 (1. Regional Centre of Central Marine Fisheries Research
 Institute, Mandapam Camp & 2. Central Marine Fisheries
 Research Institute, Sub-station, Madras)
 Unusual catches of the flyingfish, Parexocoetus brachypterus
brachypterus (Richardson) in inshore waters at Madras.
Indian J. Fish., 20(2): 629-634. 6 ref.
317. Rao, K.V.¹ and S.C. Pathak 1972
 (1. Central Fisheries Spawn Prospecting Project, Nangun
 Sarania, Gauhati, Assam & 2. Central Fisheries, C/O
 Assistant Director of Fisheries, Jaunpur (U.P.)
 A note on the occurrence of spawning of Hilsa ilisha (Hil.)
 in the river Brahmaputra (Assam)
Proct. Net. Acad. Sci., India 42(B)(2): 231-233
 The authors attempted to record the early developmental
 stages of hilsa by operating round the clock Midnapore type spawn
 collection net in the river. The spawning starts from early May and
 the higher concentration of earliest developmental stages (4 mm)
 were obtained during 1st of day time. 12 ref.

318. Rao, M. Umamaheswara 1973
 (Regional Centre, CMFRI, Mandapam Camp)
 Growth and reproduction of Gelidiella acerosa in the
 Palk Bay and Gulf of Mannar near Mandapam.
Indian J. Fish., 20(2): 411-416. 9 ref.
319. Rao, P. Vedavyasa 1973
 (Central Marine Fisheries Research Institute, Cochin-18)
 Some observations on the larval growth of the commercially
 important penaeid prawns of South-West Coast of India.
Indian J. Fish., 20(2): 308-317
 Larval stages of important penaeid prawns viz., Parapene-
opsis stylifera, Metapenaeus monoceros, M. dobsoni and P. indicus and
 the growth factor in different larval stages have been discussed. 24 r f
 24 ref.
320. Ravindran, K. and R. Balasubramanyan 1974
 (Central Institute of Fisheries Technology, Cochin-682011)
 Cathodic protection of the hulls of fishing trawlers
 in India.
Fish. Technol., 11(1): 17-21. 10 ref.
321. Reghu, R. 1973
 (Central Marine Fisheries Research Institute, Cochin-18)
 Migration of the juvenile oil sardine, Sardinella
longiceps (Val.) into the backwaters of Cochin.
Indian J. Fish., 20(2): 655-658. 3 ref.
322. Roy, A.B.
 (Dy. Director of Fisheries (CZ), Cuttack, Orissa, India)
 Marine fisheries potential of Orissa and its scope for
 exploitation.
Seafd. export J., 7(9): 35-39
 The fishery resources, potentiality and scope of exploi-
 tation in Orissa are discussed. 4 ref.

323. Saigal, B.N., Amitabha Ghosh, A.K. Datta and P.K. Chakraborti 1975
 (Central Inland Fisheries Research Institute, Barrackpore, West Bengal)
 Observations on the effects of toxic factors liberated during jute-retting on some fishes.
Indian J. environ. Hlth. 17(4): 318-322
 Effects of different organic acids, viz., -keto - flutaric acid, lactic acid and acetic acid, liberated during jute-retting, on some fishes like Heteropneustes fossilis, Anabas testudineus, Channa gachua and Tilapia mossambica have been discussed. The authors could not observe any mortality of test fishes exposed could not observe any mortality of test fishes exposed to 1:40 and 1:60 concentrations of jute : water, during trials of 45 days duration. Presence of ammonia, both in free and albuminoid form, has been reported from jute-retted waters. 3 ref.
324. Sankarankutty, C. 1975
 (National Institute of Oceanography Cochín, India)
 On a new species of Hexapus De Haan (Decapoda, Goneplacidae) from Cochin.
Crustaceana, 28(1): 1-6
325. Saraswat, R.C. and R.K. Garg 1974
 (K.R. College, Mathura)
 Studies on the mineral constituents of fins of Wallago attu (Bloch & Schneider) at different stages of growth.
Indian J. Anim. Res., 8(1): 36-38.
 Mineral constituents viz., Ca, P, Mg and Na, of fins of W. attu during three different stages of its growth have been estimated. The authors observed that the mineral concentration is highest at stage I (av. length 44.0 cm), decreases at stage II (86.7 cm) and again increases at stage III (av. length 95.7 cm). 3 Ref.
326. Selvaraj, G.S.D. & M. Rajagopalan 1973
 (Central Marine Fisheries Research Institute, Cochin-10)
 Some observations on the fecundity and spawning habits of the rock cod, Epinephelus tauvina (Forsk.) . Ibid , 20(2):668-71. 3 ref.

327. Sen, T.K. 1974
(Zoological Survey of India, Calcutta, India)
Important marine food fishes of India. Family: (Carangidae).
Seafd export J., 6(4):15-25.

A short description of the carangid fish of economic importance is given. 8 ref.

328. Shaffi, S.A., A.K. Jafri and D.K. Khawaja
(Department of Zoology, Aligarh Muslim University, Aligarh, India).
Distribution of 5'-Nucleotidase activity in the tissues of a freshwater teleost, Ophicephalus striatus Bloch.
Fish Technol., 11(2): 156-157.

The enzyme activity of 5' nucleotidase in O. striatus which has bearing on the rigor, freshness and flavour quality of the fish is presented. 6 ref.

329. Sharma, B.D. and Tej Sharma
(Department of Zoology, University of Kashmir, Srinagar-6).
Six new fish records for Poonch valley in J & K State.
Indian J. Anim. Res. 8(1):45

Six species of fish, belonging to family Cyprinidae and Cobitidae, from Poonch valley of Kashmir have been reported, which according to the authors are new records of fish from this region. 2 ref.

330. Shenoy Vasanth, A & M. Arul James 1974
(Central Institute of Fisheries Technology, Ernakulam, Cochin-11).
Spoilage of spotted seer (Scomberomorus guttatus) during ice storage. Fish. Technol., 11(1):67-72.

Based on organoleptic evaluation authors have shown that fillets and chunks of Scomberomorus guttatus when kept in cold storage they are acceptable upto 13 and 10 days only as they are without and with the contact of ice respectively. 6 ref.

331. Shreni, Kalpana U and A.K. Jafri
(Department of Zoology, Aligarh Muslim University, Aligarh, India)
Cholesterol content in the eggs of some freshwater teleosts (Fish. Technol., 11(2): 158-160)
The distribution of total cholesterol in the ripe, unspawned eggs of some freshwater teleosts is presented. 10 ref.
332. Singh, D.P. 1973
(Department of Zoology, R.B.S. College, Agra)
The anatomy and histology of the bucco-pharyngeal region of a carnivorous fish, Notopterus notopterus (Pallas)
Agra Univ. J. Res. (Sc) 22(1): 35-46
Anatomy and histology of bucco-pharyngeal region of a carnivorous fish Notopterus notopterus have been described. 17 ref.
333. Singh, D.P.¹ and C.P. Singh² 1974
(1. Department of Zoology, R.B.S. College, Bichpuri, Agra and
2. Department of Zoology, Agra College, Agra)
On the basicranial bones of a few freshwater teleosts of different feeding habits.
Agra Univ. J. Res. (Sci), 23(2): 31-36 : 9-14
The basicranial bones of five freshwater fishes viz., Notopterus notopterus, Rita rita two carnivores, Buntius sarana an omnivore, and Labeo calbasu a herbivore one and Rhivonmgil corsula a plankton feeder, have been described. According to the authors these structures have more an osteological than anatomical significance. 12 ref.
334. Singh, D.P. and O.P. Singh 1973
(Department of Zoology, R.B.S. College, Bichpuri, Agra)
The anatomical features of buccopharynx and brain in Sisor rhabdophorus (Ham.) and Chela bacaila (Ham.) in relation to their feeding habits.
Agra Univ. J. Res. (Sc), 22(1): 47-58
From their observations the authors have pointed out some basic difference in the anatomy of the bucco-pharyngeal region of S. rhabdophorus - a carnivorous fish, and C. bacaila a herbivorous fish. The structure of the brain and other sense organs of the two species suggested that S. rhabdophorus is a bottom feeder while C. bacaila is a surface feeder. 12 ref.

335. Singh, D.P. and D.P. Singh 1974
 (Department of Zoology, R.B.S. College, Bichpuri (Agra).
 A morpho-histological study of the olfactory organ of
 a few teleost fishes.
Agra Univ. J. Res. (Sci.), 23(2):
 Structure of olfactory organs in three fishes viz.,
Notopterus notopterus, Trichogaster fasciatus and Labeo dero have
 been described.
336. Sinha, V.R.P. 1975
 (Coordinated Project, Composite Fish Culture and Fish Seed
 Production, CIFRI, Barrackpore, West Bengal)
 Composite fishculture can boost fish industry.
Indian Fmg., 25 (6): 17-18
 Requirements of fertilisers, fish feed and stocking material
 for six-species culture and economics of production from composite
 fish culture have been dealt with. Employment potential of pisdicul-
 ture has been discussed.
337. Sinha, V.R.P. and M Vijaya Gupta 1975
 (Central Inland Fisheries Research Institute, Barrackpore,
 West Bengal)
 On the growth of grass carp, Ctenopharyngodon idella Val.
 in composite Fish Culture at Kalyani, West Bengal (India)
Aquaculture, 5(3): 283-289
 Results of Composite fish culture experiments conducted
 in two ponds at Kalyani, West Bengal, with a stocking density at
 more than 5,000/ha and with a species composition of Catla, rohu,
 mrigal, grass carp, silver carp and common carp, have been presented.
 In these experiments grass carp C. idella, recorded an unprecedented
 average growth of over 5 Kg in one year which is a record growth of
 the species under such heavy stocking density. The authors opine
 that grass carps not only control aquatic weeds but also is one of
 the best culturable fish if its feeds are available. 20 ref.
338. Subrahmanyam, M. 1974
 (Prawn Breeding Unit of CIFRI, Kakinada, A.P.)
 New prawns for farming and export from India.
Seafd. export. J., 6(12): 35-37

339. Subrahmanyam, M. 1975
 (Prawn Breeding Unit, Central Inland Fisheries Research Institute, Kakinada)
Macrobrachium culture in India
Indian Fmg. 25(6): 21-23
 Principles involved in Macrobrachium culture, recent advances in rearing the freshwater giant prawn and cultural techniques of M. rosenbergii & M. malcolmsonii have been discussed.
340. Sekumaran, K.K. 1973
 (Central Marine Fisheries Research Institute, Sub-station, Bombay)
 Observations on the secondary sexual characters of Hippolysmata ensirostris Kemp.
Indian J. Fish., 20(2): 626-629. 8 ref.
341. Swaminath, M. and K. Ninan 1976
 (Integrated Fisheries Project, Cochin)
 Hydraulic power for technological advancement in fishing industry
Seafd. export. J., 8(12): 11-23
 The transmission of hydanlic power and some hydraulic power instalation systems is discussed. Desails of the pumps, motore and its control are also presented.
342. Swamy, P.K. 1974
 (Central Marine Fisheries Research Institute, Cochin-18, Kerala, India)
 Plankton as a source of human food.
Seafd. export. J., 6(2): 23-26
 The chemical composition of various types of plankton, uertical distribution of plankton and areas of abundance is discussed.
343. Swarup Krishna, Arvind Kumar & Shiraji Srivastava 1972
 (Department of Zoology, University of Gorakhpur, Gorakhpur)
 Sexual dimorphism in the giant Ganrami, Colisa fasciatus (Anabantidae)
Proc. Nat. Acad.Sci., India, 42(8)(1): 93-94. 2 ref.

344. Talwar, P.K. 1969
 (Zoological Survey of India, Calcutta)
 On the shore fishes of Goa.
Rec.Zool.Surv.India, 67(1-4): 191-232
 Author reports the occurrence of 168 species belong to 109 genera and 67 families from the coastal region of Goa. Systematic account, number of examples collected, size range, exact locality & distribution of the fishes have been discussed. 26 ref.
345. Tilak Raj 1969
 (Zoological Survey of India, Calcutta)
 A study on the freshwater and estuarine fishes of Goa.
 2. Notes on the fishes found within the territory of Goa.
Rec. zool. surv, India, 67(1-4): 87-120
 A list of fishes, recorded from freshwater and estuarine waters of Goa has been given. The author spines that the existence of Acanthopthalmus is an interesting record of this genus from South Western India. 25 ref.
346. Verghese, T.J. 1975
 (College of Fisheries University of Agricultural Sciences, Mangalore, India)
 Farming of the grey mullets.
Seafd. export J., 7(9): 23-27
 The life history artificial propagation, farming practice and farming prospects in India of the mullets, M. cephalus, M. cunnesis, L. tade, R. corsula, L. persia etc. are discussed.
347. Vasisht, H.S. and B.K. Sharma 1975
 (Department of Zoology, Punjab University, Chandigarh)
 Ecology of an urban pond in Ambala City of the Haryana State
Indian J. Ecol., 2(1): 79-86
 Investigation was made on the self purification pohntial of a polluted nulla at Chandigarh. The change in Temp. pH, D.O., B.O.D., suspended solids, hardness, alkalinity and nutrients is brought about by agents, such as protozoans, nematodes, rotifers, oligochactes, in such larvae, algae and . 21 ref.

348. Vazirani, T.G, 1969
 (Zoological Survey of India, Calcutta)
 Contributions to the study of aquatic beetles (Coleoptera)
 11. on a collection of Gyrinidae, Dytiscidae, and Hydrophilidae from Andaman Islands.
Res. zool. soc. India., 67(1-4): 81-85. 2 : f.
 One species of Gyrinidae, seven species of Dytiscidae and two species of Hydrophilidae have been reported. Systematic account, number of examples in the collection and distribution of the species of aquatic beetles have been dealt with. Among species discussed Gyrinus smaragdinus, Hydaticus leechi, Sternolopus rufipes and Regimbartia attenuata have been recorded for the first time from Andaman Islands. 2 ref.
349. Velu, M.¹, K. Alagarswami² and S.Z. Qasim³ 1973
 (1. Central Institute of Fisheries Technology, Cochin, 2. Central Marine Fisheries Research Substation, Tuticorin & 3. National Institute of Oceanography, Miramar, Panaji, Goa)
 Technique for producing spherical Bshell beads as nuclei for cultured pearls.
Indian J. Fish., 20(2): 672-676. 5 ref.
350. Venkataraman, G.¹ & K.V. Narayana Rao² 1973
 (1. Central Marine Fisheries Research Institute, Regional Centre Mandapam Camp & 2. UNDP, Pelagic Fisheries Project, Cochin)
 On the mackerel fishery of Calicut during the years 1959-60 to 1967-68.
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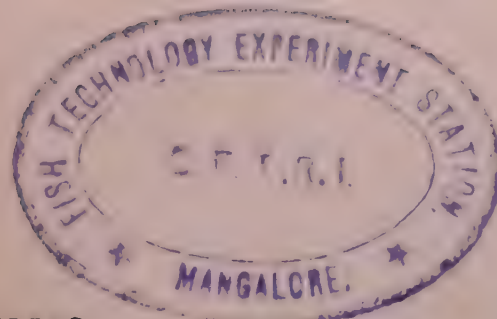
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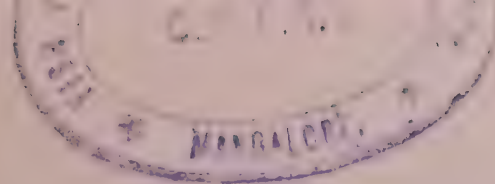
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6 ref.
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Mar. Sci. Univ. Cochin, 7(2):319-328. 5 ref.
59. Prabhakaran Nair, K. 1974
(Central Marine Fisheries Research Institute Substation,
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Exploratory trawl fishing in Bombay Saurashtra waters
during 1968-70. Indian J. Fish., 21(2):406-426. 9 ref.

60. Rajender Kumar, P.V.¹, S. Kameswaran², M.V. Rajendran³, S. Rajendran⁴ and M.N. Kutty⁵ 1976

(¹Madurai Medical College, Madurai; ²Institute of Otorhinolaryngology, Madras Medical College, Madras. ^{3&4}Department of Zoology, St. Xavier's College, Palayamkottai and ⁵Department of Fishery Science, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu).

Responses of certain fishes and snakes to sound.

J., Bombay nat. Hist. Soc., 73(1):88-93.

Ostariophysid fish Cyprinus carpio could perceive sound frequency ranges upto 4000 cycles/second while non ostariophysid fishes like Rhinomugil corsula and T. mosseambica responded upto 1500 and 1000 cycles/Second respectively. 14 ref.

61. Rajyalakshmi, T. 1975

(Central Inland Fisheries Research Institute (K.G. Unit), Rajahmundry, A.P.)

Environmental ecology of Macrobrachium rosenbergii, M. malcolmsonii and Metapenaeus monoceros in certain drain channels opening into Kakinada bay. Bull. Dept. Mar. Sci. Univ. Cochin, 7(2):285-292.

M. rosenbergii, M. malcolmsonii and M. monoceros dominate the prawn landings in the drain channels of Kakinada Bay area. Physico-chemical and biological conditions of these creeks have been presented. Mode of culture, distribution and size range of the prawns have also been discussed. 7 ref.

62. Ramamohana Rao, G. 1974

(Pulicat Lake Unit of the Central Inland Fisheries Research Institute, 19A, Patel Road, Madras-11).

Observations on the age and growth maturity and fecundity of Labeo fimbriatus (Bloch) of the river Godavari. Indian J. Fish., 21(2):427-44.

Results of the detailed studies on age and growth, maturity and fecundity of L. fimbriatus have been presented. The period of annulus formation was observed to be during May-August. A close agreement was noticed among age estimation made by three different methods (Petersen's method, probability paper method

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(Central Inland Fisheries Research Institute, Pulicat Lake Unit, Madras).
Estimation of total mortality rates of Mugil cephalus Linnaeus in Pulicat Lake. Ibid, 21(2):588

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(Department of Zoology, Andhra University, Waltair).
Rotifer as indicators of pollution. Curr. Sci., 46(6):190

Author suggests that Brachionus plicatilis can be regarded as an indicator of high alkalinity and pollution of brackish water environment as evident from the observations and at Visakhapatnam. 3 ref.

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 Functional regressions in fisheries research. Curr. Sci.,
46(6):186 .

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 Kodibag, Karwar).
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 Heller (Crustacea, Decapoda, Anomura). Bull. Dept. Mar.
Sci. Univ. Cochin, 7(2):293-308.

Different larval stages of the hermit crab were reared in the laboratory to 1st crab instar. Description of the larval stages have been presented. 5 ref.

69. Sarma, A.L.N. and P.N. Ganapati 1975
 (Department of Zoology, Andhra University, Waltair).
 Meiofauna of the Visakhapatnam harbour in relation to
 pollution. J. Dept. Mar. Sci. Univ. Cochin, 7(2):243-255.

Qualitative and quantitative analysis of meiofauna, subjected to industrial and domestic pollution in different arms of the harbour were made. The density of meiofauna was found richer in areas of organic pollution than in areas of industrial pollution. 27 ref.

70. _____ 1975
 (Department of Zoology, Andhra University, Waltair).
 Phytoplankton fauna of the Visakhapatnam harbour buoys. Ibid,
7(2):263-272. 14 ref.

71. Saxena Saroj and I.A.Niazi 1977
(Department of Zoology, University of Rajasthan, Jaipur-302004).
A comparative study of the effects of palmitate and acetate forms of vitamin A on toad tadpoles.
Curr. Sci., 46(5):148-149.
- Effects of two different ~~esters~~ of Vitamin "A" on tadpoles of Bufo andersonii have been discussed. The acetate form of Vitamin "A" was found to be more more toxic while palmitate form caused hyperplasia of the mucosal cells of the gastro-intestinal tract. 4 ref.
72. Seshappa, G. 1974
(Central Marine Fisheries Research Institute, Substation, Calicut-5).
On the fishery and biology of the large tongue-sole, Cynoglossus dubius Day, at calicut, Kerala. Indian J. Fish., 21(2):345-356. 8 ref.
73. Seshagiri Rao, B.V. 1976
(Department of Zoology, D.N.R. College, Bhimavaram, A.P.).
On the occurrence of the goby, Brachygobius nanus (Ham: Bloch) in Andhra Pradesh, with a note on its ecology. J. Bombay nat. Hist. Soc., 73(1):227-228. 6 ref.
74. Seshagiri Rao, B.V. and K. Subba Raju 1976
(Department of Zoology, D.N.R. College, Bhimavaram, A.P.)
Large scale incidence of sexual abnormality in the frog Rana tigrina. Ibid, 73(1): p226.
- Presence of fully developed oviducks in male R. tigrina has been reported. 1 ref.
75. Silas, E.G. and P. Parameswaran Pillai 1975
(Central Marine Fisheries Research Institute, Cochin).
Dynamics of zooplankton in a tropical estuary (Cochin backwater), with a review on the plankton fauna of the environment. Bull. Dept. Mar. Sci. Univ. Cochin, 7(2): 329-355.

The zooplankton fauna of Cochin backwaters have been dealt with in detail. Greater number of zooplankton belong to the inshore populations, some freshwater and a few endemic. The authors opined that the food potential of zooplankton for plankton feeding fishes and fish larvae is high in Cochin backwaters. Hydrographic features of the estuary have also been presented. 45 ref.

76. Sinha, G.M. and S.K. Moitra 1975
(Department of Zoology, Burdwan University, West Bengal).
Functional morpho-histology of the alimentary canal of an Indian freshwater major carp Labeo rohita during its different life-history stages. Anat. Anz. Bd., 138, S:222-239.

The alimentary canal of the fry of L. rohita was observed to be carnivorous type with low R.L.G.. They principally subsist on zooplankton and with the advancement of age the food and feeding habits undergo changes and the fingerlings and adults become herbivorous. The R.L.G. value steadily increases and the G.I tract gradually becomes herbivorous type. The taste buds and mucous cells of fingerlings and adults are in marked contrast with those of fry. 23 ref.

77. Singh Rajendra and T.P. Singh 1975
(Department of Zoology, Banaras Hindu University, Varanasi-221005).
Hypothalamic stimulation of prolactin release in a freshwater catfish, Heteropneustes fossilis. Annales d'Endocrinologia (Paris), 36 : 309-316.

The authors observed a rise in prolactin concentration of serum and resultant decrease in the pituitary prolactin level in response to hypothalamic extract administration in H. fossilis which suggests that hypothalamus in H. fossilis has prolactin releasing factors. Critical extract injections were found to be effective in producing similar results. 43 ref.

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(Department of Marine Sciences, University of Cochin, Kerala)
Seasonal variation in the lipid and calorific values in Villorita cyprinoides var. cochinensis (Hanley). Bull. Dept. Mar. Sci. Univ. Cochin, 7(2):403-407.

Calorific value of the flesh of the black calm was found to be directly proportional to the lipid content of the species. Seasonal variation in the water, lipid, organic carbon etc. in the species have also been presented. 7 ref.

79. Sobhana, B and N. Balakrishnan Nair 1974
(Department of Aquatic Biology and Fisheries, University of Kerala, Trivandrum-7).
Observation on the maturation and spawning of Puntius sarana subnasutus (Valenciennes). Indian J. Fish., 21(2):357-368. 18 ref.
80. Somasekharan Nair, K.V. 1974
(Central Marine Fisheries Research Substation, Calicut).
A preliminary study on the length frequency of Pseudosciaena sina (Cuvier and Valenciennes) at Calicut during 1969-72. Ibid, 21(2):330-38. 5 ref.
81. Sreenivasan, A. and T. Franklin 1975
(Hydrobiological Research Station, Madras-10).
Effect of disposal of effluents from petrochemical complex on Ennore backwaters. Bull. Dept. Mar. Sci. Univ. Cochin, 7(2):273-280.

Effects of treated effluents, discharged by Madras Refineric Ltd and Madras Fertilizers Ltd., into the Ennore backwaters, have been discussed. The treated effluents were found to have a nutritive effect indicated by increased phytoplankton population. Oxygen supersaturation was found in both the effluents. Zooplankton, small prawns, minor catfishes and Tilapia were present at discharge areas which indicated that Ennore backwater is not affected by these industrial discharges. Bioassay experiments proved them to be non lethal to fish. 14 ref.
82. Srivastava, G.C. and R.C. Srivastava 1977
(Department of Botany, St. Andrews College, Gorakhpur, India).
Host range of Saprolegnia ferax (Gruith) Thuret on certain freshwater teleosts. Curr. Sci., 46(3): 87p.

Saprolegnia infection in Labeo rohita, Cirrhinus mrigala, Ctenopharyngodon idella, Hypophthalmichthys molitrix and Catla catla has been reported. Parasitic ability of the fungus was also established by artificially inoculating the fungus on Puntius sophore, Mystus tengra and Colisa fasciata. Different symptoms and cause of infection have been discussed. 11 ref.

83.

1977

(Department of Botany, St. Andrews College, Gorakhpur-273001).

Distyuchus anomalous (Nagai) a new pathogen of freshwater teleosts. Ibid, 46(4): 118 p

Dictyuchus infection in Channa punctatus has been reported. This fungal infection resulted the death of the infected hosts. Laboratory inoculation of the fungus could be made possible on Puntius sophore and Colisa lalia. The fungus, as opined by the authors, is a fish pathogen. 4 ref.

84.

Sudhakara Rao, G. 1975

(Central Marine Fisheries Research Institute, Unit, Kakinada-2, A.P.).

Prawn fishery of the Kakinada backwaters. Bull. Dept. Mar. Sci. Univ. Cochin, 7(2):427-446.

The Kakinada backwaters has been reported to support an active prawn fishery throughout the year with peak landings during April-May and October-December periods. Stakenets and drag nets were found to account for over 90% of the catch. About 25 species of penaeids and 20 species of non-penaeids prawns were encountered and M. monoceros was found to dominate all through the years. 24 ref.

85.

Surendran, P.K. and K. Mahadeva Iyer 1975

(Central Institute of Fisheries Technology, Willingdon island, Cochin, India).

Development of tolerance to chlortetracycline by marine bacteria. Ibid, 7(2):221-229

Experiments were carried out on the development of tolerance towards CTC by 71 strains of marine bacteria. Pseudomonas and Achromobacter developed rapid tolerance towards CTC upto 30 and 40 ppm respectively. Flavobacterium developed tolerance to 7-16 ppm and Micrococci to 16 ppm by successive subcultures. 4 ref.

86. Talesara, C.L. and V. Mala : 1977
(Muscle physiology and Biochemistry Unit, Department of Zoology, University of Delhi, Delhi-110007).
Histochemical study of normal and denervated gastrocnemius muscle of frog Rana tigrina & toad Bufo melanostictus. Indian J. exp. Biol., 15(2):113-117. 20 ref.
87. Talwar, P.K. 1974
(Zoological Survey of India, Calcutta).
A contribution to the taxonomy of Rhizoprionodon oligolinx Springer, 1964: an important component of the shark fishery of Orissa, India. Indian J. Fish., 21(2):604-607. 7 ref.
88. Thakur, Nirmal K and S.A.K. Nasar : 1977
(All India Coordinated Research Project on culture of Air-breathing fishes, Central Inland Fisheries Research Institute, Laheriasari 846001, Darbhanga, Bihar).
On the occurrence of lymphocystis in Anabas testudineus (Block). Curr. Sci., 46(5):150-151.

A case of lymphocystis in A. testudineus has been reported.
12 ref.
89. Thomas, M.M. : 1974
(Central Marine Fisheries Research Institute, Cochin).
Decapod crustaceans new to the Laccadive Archipelago. Indian J. Fish., 21(2):339-344. 21 ref.

90. Thomas, M.M., M. Kathirvel and N.N. Pillai 1974
(Central Marine Fisheries Research Institute, Cochin)
Observations on the spawning and rearing of Metapenaeus
dobsoni under laboratory condition. Ibid, 21(2):575-79.

Results of the experiments on spawning and subsequent larval development of Metapenaeus dobsoni under laboratory conditions have been reported. Nauplius I larvae emerged after 8-9 hrs of spawning and attained Protozoa I stage after five moulting in 43.30 hrs. Undergoing two more moults, these larvae reached Mysis I stage in 178.30 hrs which subsequently metamorphosed to post larvae in 13 days and 8 hrs (321.30 hrs). Brief description of various larval stage have also been presented. 13 ref.

91. _____ 1974
(Central Marine Fisheries Research Institute, Cochin).
Spawning and rearing of the penaeid prawn, Metapenaeus
affinis (H. Milne Edwards) in the laboratory. Ibid,
21(2):543-56.

The results of the laboratory experiments on spawning and large scale rearing of Metapenaeus affinis have been presented. The nauplius larva hatched out after 8 hrs of spawning and subsequently attained protozoa I, mysis I and post larvae I stages in 46, 189 and 322 hrs respectively. While the nauplii thrived on reserved yolk, the diatom, Thalassiosira sp. was found to be the best food at protozoa stage. The morphological feature of the different larval stages have also been communicated. 11 ref.

92. Thomas, P.C.¹ & T.L. Murthy² 1975
(¹Pesticide Fish Research Laboratory, College of Basic Science and Humanities, O.U.A.T., Bhubaneswar.²Orissa Veterinary College, O.U.A.T. Bhubaneswar).
Effect of phosphamidon on hepatic and renal catalase of a freshwater bony fish. Ibid, 21(2):594-97. 10 ref.

93. _____ 1976
 (Surgical Research Laboratory Institute of Medical Science, Banaras Hindu University, Varanasi. ²Department of Biochemistry, Orissa Veterinary College, Orissa University of Agriculture and Technology, Bhubaneswar, Orissa).
 Studies on the impact of a few organic pesticides on certain fish enzymes. Indian J. Anim. Sci., 46(11):619-24

Effects of an organophosphorus insecticide, monocrotophs, individually or in combination with other drugs as endrine and sevin on fish enzyme activity have been reported. 14 ref.

94. Udupa, K.S. 1974
 (University of Agricultural Sciences, College of Fisheries, Mangalore).
 On the estimation of parameters of von Bertalanffy growth equation. Indian J. Fish., 21(2):399-405.

The author describes a new method which gives the quick estimate of growth parameters in growth equation to avoid a series of computation and graphic method. 2 ref.

95. Varghese, P. Oommen and K.P. Philip 1974
 (Integrated Fisheries Project, Cochin-16).
 Observations on the fishery and biology of the deep sea spiny lobster Puerulus sewelli Ramadan. Ibid, 21(2):369-85

The paper describes the occurrence of P. sewelli along the west coast of India within a depth of 180-460 metres. Also a bring study on the distribution, abundance, seasonal variations and fishery potential was carried out based on trawl catches. 16 ref.

96. Viswanathan, R. 1975
 (Bhabha Atomic Research Centre, Bombay-400085).
 Chemistry of the estuarine environment. Bull. Dept. Mar. Sci. Univ. Cochin, 7(2):281-284.

The paper reviews the works on micronutrients and trace elements, which influence productivity estuarine environment. 15 ref.

97. Venkataramanujam, K¹ and K. Ramamoorthi² 1974
 (1Department of Fishery Science, Tamil Nadu Agricultural University, Coimbatore-641003. 2Centre of Advanced study in Marine Biology, Annamalai University, Porto Novo).
 Studies on the seasonal abundance of the fish eggs and larvae of Porto Novo waters. Indian J. Fish., 21(2):454-62

The paper dealt with the availability of eggs of 18 species larvae of 28 species of fish recorded from 5-10 fathom line and Vellar river mouth for a period of 2 years, 1970-71 and 1971-72. 28 ref.

98. Venkataramani, V.K. and V. Ramaiyan 1977
 (Centre of Advanced study in Marine Biology, Annamalai University, Parangipettai-608502, Tamil Nadu).
 A carangid fish Caranx williamsi (Smith, 1968) (Pisces: Carangidae). Curr. Sci., 46(1):26

Reports a carangid fish hitherto unreported from Indian waters from Porto Novo coast, India. 1 ref.

99. Yazdani, G.M. 1976
 (Western Region/Station, Zoological Survey of India, al Poona-411005).
 A new family of mastacembeloid fish from India. J. Bombay nat. Hist. Soc., 73(1):166-170.

Taxonomic status of Pillaia indica has been discussed. Comparative account of morphometric features of Chaudhuriidae and Mastacembelidae has been presented. From its morphometric features and affinities with other species of the related families the author advocated to place it under a separate family consisting of a single genus and species. 8 ref.

100. Yazdani, G.M. and M. Babu Rao 1976
 (Western Regional Station, Zoological Survey of India, Poona-411005).
 A new species of the genus Puntius (Hamilton) (Pisces: Cypriniformes: Cyprinidae) from western India. J. Bombay nat. Hist. Soc., 73(1):171-175.

A new species of Puntius possessing an osseous serrated dorsal ray and a single pair of barbels has been described. A list of Puntius spp. known from India has been appended. 8 ref.

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V. SERIAL INDEX

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* Foreign
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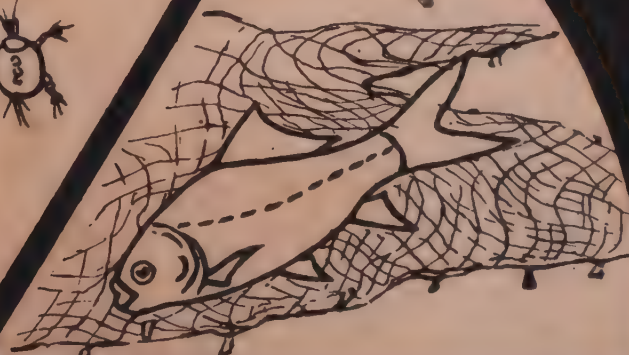
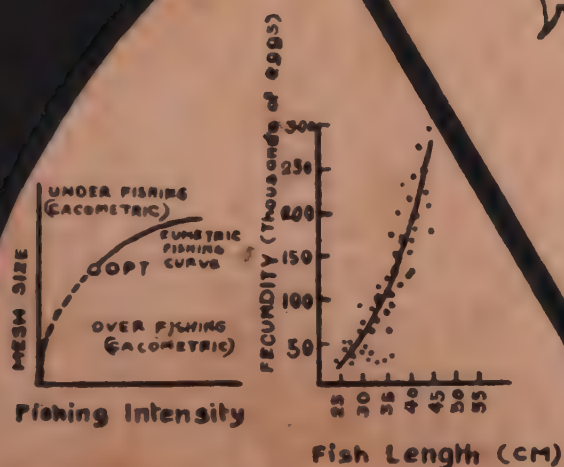
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<u>J. Bombay nat. Hist. Soc.</u> , 1976, <u>73</u> (1)	...	14, 60, 73, 74, 99 & 100
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*# <u>Z. mikrosk anat. Forsch. Leipzig</u> , 1973, <u>87</u> (4)	...	8





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I. ENTRIES

101. Ahuja, Shaki and D.P. Singh 1975

(Department of Zoology, R.B.S. College, Bichpuri, Agra).
The visceral skeleton of pleuronectiform fishes Psettodes
erumei (Schn) and Cynoglossus bilineatus (Lac.). Agra
Univ. J. Res. (Science), 24(1-3):69-79.

The paper deals with the structure of the Visceral skeleton of pleuronectiform fishes which consists of oromandibular, the hyoid, the opercular and the branchial regions. 7 ref.

102. Alagaraja, K¹ and M. Vijaya Gupta 1976

(¹Central Marine Fisheries Research Institute, Cochin-18, Kerala, India. ²Central Inland Fisheries Research Institute, Barrackpore).

A note on clipping experiments to estimate fish production in culture operations. J. Inland Fish. Soc. India, 8:157-159.
increment

The authors observed that the length_{of} unclipped fishes were significantly different from the clipped ones. From the clipping experiments it was also revealed that clipping of pelvic fins were only useful in short term studies. The regeneration of clipped fins were more rapid in case of younger fishes. 4 ref.

103. Amminikutty, C.K. and M.S. Rege, 1977

(Department of Zoology, Institute of Science, Bombay-400032).
Effects of acute and chronic exposure to pesticides, Thiodan, E.C. 35 & Agallol '3' on the liver of widow tetra Gymnocorymbus ternetzi (Boulenger). Indian J. exp. Biol. 17(3):197-200

The author reports that effects of thiodan on the liver are more severe than those of agallol. Acute exposure of both the pesticides leads to destruction of hepatocytes. Chronic exposure of thiodan leads to hyperplasia and hypertrophy of the islet cells.
11 ref.

104. Basu, N.C. and B.B. Pakrasi 1976

(Central Inland Fisheries Research Substation, Calcutta)
On the occurrence of milk fish Chanos chanos (Forskol) larvae in the Bakkhali region of lower Sunderbans. J. Inland Fish. Soc. India, 8:97-104. 8 ref.

105. Bhanot, Kuljeet, K¹ and K.K. Vass 1976
(Central Inland Fisheries Research Institute, Barrackpore)
Mass rearing of Daphnia carinata King in the field. Ibid,
8 : 145-148.

of

The paper describes a simple and economical method / mass culture of Daphnia carinata under field condition by using poultry manure as a source of nutrient. It also revealed that the average life span of each individual was about 50-60 days and to get a steady supply partial harvesting was necessary. 14 ref.

106. Bose, K.C., M.C. Mahata and A. Dey 1975
(Department of Zoology, Ranchi University, Ranchi-834008).
Freshwater molluscs of Chotanagpur (Bihar). Indian J. Anim. Res., 9(2): 107-109.

A systematic account of the freshwater molluscs of Chotanagpur based on the extensive collections has been given. 12 ref.

107. Bose, S. Victor Chandra and A.D. Venkatswamy
(All India Co-ordinated Research Project on Brackishwater Fish Farming (I.C.A.R.), Madras-600028, India)
Prawn culture at Santhome brackishwater fish farm, Madras.
J. Inland Fish. Soc. India, 8:163-164

Experiments carried out with early post larvae (12-16 mm) with stocking densities of 3,4 & 5 lakhs/ha using boiled Tilapia flesh as supplementary food, indicated that survival rates were identical under 3-4 lakhs stocking density but poor under 5 lakhs stocking density.

108. Chattopadhyay, G.N. and A.N. Ghosh 1976
(Brackishwater Experimental Fish Farm of the Central Inland Fisheries Research Institute, Kakdwip, West Bengal)
On the behaviour of native phosphorus in water-logged saline soils. Ibid, 8 : 121-123.

The authors observed that in brackishwater impoundments available soil phosphorus was higher under trace salinity. The bound phosphorus mainly represented by calcium phosphate, iron phosphate and aluminium phosphate. They also observed that amount of fixation as calcium phosphate increased with increase in water salinities. The authors opine that phosphorus fertilisation scheme in brackishwater should be developed taking into considerations the existing water salinity and transformation of native phosphorus. 4 ref.

109. Chakrabarty, R.D., D.S. Murty, P.R. Sen, A.C. Nandy and D.P. Chakrabarty 1976

(Central Inland Fisheries Research Substation, Cuttack, Orissa, India).

Short-term rearing of Indian and exotic carps. Ibid, 8:179-183.

The authors opine that a stocking density of 3,000/ha is suitable for culturing Indian & exotic carps for a short period which is useful for utilising a large number of seasonal ponds in the country. 2 ref.

110. Chakraborty, R.D., P.R. Sen, N.G.S. Rao, S. Jena and K. Janaki Ram 1976

(Central Inland Fisheries Research Substation, Cuttack, Orissa)
Preliminary observations on the performance of Mugil cephalus (Linnaeus) in freshwater ponds under composite culture. Ibid, 8 : 125-128.

Results obtained in the culture of Mugil cephalus alongwith Indian and Chinese major carps have been presented. The maximum average growth obtained by the species was 343 mm/496 g. Food studies of the mullet indicated that it was principally a phytoplankton feeder. 7 ref.

111. Chhappgar, B.F. 1977

(Bhabha Atomic Research Centre, Scientific Officer (Radio ecology), Trombay, Bombay).

The anaemic icefishes of antarctica. Sci. Reprtr., 14(4):247-249.

The author describes the distribution of the ice-fish belonging to family chaenichthyidae, under order Pereiformes. The fish is scaleless and the blood is transparent without red blood corpuscles.

112. Choubey, B.L., B.N. Pandey, P.K. Pandey and J.S. Datta Munshi 1976
(Post Graduate Department of Zoology, Bhagalpur University
Bhagalpur).

Effect of light and darkness on oxygen consumption and
blood of an air-breathing siluroid fish, Heteropneustes
fossilis (Bloch) J. Inland Fish. Soc. India, 8 : 68-71

Investigations were made on H. fossilis to evaluate the
effects of photoperiod regime on erythrocyte count, haemoglobin
contents and Oxygen consumption which revealed that the oxygen
comption during the 3rd month was significantly higher for the fishes
exposed to illuminated conditions, than those exposed to darkness. The
R.B.C. and Hb. concentrations were also found higher under illuminated
conditions. 9 ref.

113. Das, P.¹, M. Sinha², D. Kumar³, D.P. Chakraborty⁴ and M.K. Guha Roy⁵,
1976

(1-4 Central Inland Fisheries Research Institute, Barrack-
pore, West Bengal. 5 - Jute Agricultural Research Institute
Barrackpore).

Field demonstration for fish farmers in composite fish
culture. Food Farming and Agriculture, 8(2): 43-45

The paper deal/s with the field demonstrations in composite
fish culture at the Jute Agricultural Research Institute, Nilgunj &
Mirhati, West Bengal during 1973-74, where a production of 5253 and
4506 Kg/ha/yr. were achieved using six species culture technique. 3 ref

114. Datta, N.C., A.K. Saha and A. Das 1976
(Fishery Laboratory, Zoology Department, University of
Calcutta, Calcutta).

Investigation on the morphology of the olfactory apparatus
of Anabas testudineus (Bl). J. Inland Fish Soc. India,
8 : 13-18 29 ref.

115. David, A.¹ and N.G.S. Rao² 1976

(1 20 A, East End Road, Bangalore. 2 Central Inland Fish-
eries Research Substation, 19 Cantonment Road, Cuttack,
Orissa).

Utility of small village ponds and seasonal tanks for fish
culture in Mysore. Ibid, 8, 233-241

Results of experiments conducted on fish culture in irrigational tanks and village ponds (0.17 to 121.4 ha) using Indian major carps and common carp have been presented. Village ponds yielded upto 2,080 Kg/ha/yr irrigational tanks 799 Kg/ha/yr while seasonal tanks (31.2-121.4 ha) yielded 179.0 Kg/ha/10 months. 6 ref.

116. Dhiman, K.C. 1977
(Office of the Fisheries Officer, Talwara, Punjab, India).
Commercialisation of fish seed production by bundh breeding. Punjab Fish. Bull., 1(1): 33-34
- Bundh breeding technique for breeding the major carps has been described and its possibilities in Punjab state assessed.
117. Durve, V.S. 1976
(Division of Linnology and Fisheries, Department of Zoology, University of Udaipur, Udaipur).
The fisheries of the lake Jaisamandh, Rajasthan. J. Inland Fish. Soc. India, 8 : 19-23. 8 ref.
118. Dutt, S & K. Ravindranath 1976
(Department of Zoology, Andhra University Postgraduate Centre, Guntur-522005, India).
Changes in the relative growth rates of the inner pair of telson spines and the spinous end of the telson in three species of Macrobrachium Bate (Decapoda, Palaemonidae). Crustaceana, 31(3): 296-300
- Discuss the identification of three species of Macrobrachium Bate in relation to the rate of growth of telson spine from juveniles to adult stage. 11 ref.
119. Ghosh, Amitabha 1976
(Central Inland Fisheries Research Institute, Barrackpore)
Digestive enzymes and their correlation with the food habits in the catfish Clarias batrachus (Linn.)

J. Inland Fish. Soc. India, 8 : 137-139

Presence of proteinase, peptidase, Lipase, amylase and invertase in different parts of the alimentary canal of C. batrachus has been reported. The author opines that the digestive enzyme equipment of the fish is well fitted with its omnivorous feeding habit. According to the author the fish is an omnivore though principally consumes animal food. 6 ref.

120. Ghosh, A.N. and P.K. Pandit 1976

(Brackishwater Fish Farm, Central Inland Fisheries Research Institute, Kakdwip, 24-Parganas, West Bengal).

A note on the salinity tolerance of common carp Cyprinus carpio Linn. Under Indian conditions

J. Inland Fish. Soc. India, 8 : 115-116

According to the authors C. carpio can tolerate salinity level upto 7‰ with moderately good feeding intensity. Above 12.6‰ the fishes died indicating this to be a lethal limit. The authors opine that Cyprinus can be profitably cultured in a salinity range upto 5‰. 3 ref.

121. Ghosh, Apurba, L.H. Rao and S.K. Saha 1976
 (Central Inland Fisheries Research Institute, Barrackpore)
 Cultural possibilities of air-breathing cat fish Clarias
batrachus in domestic waste waters. J. Inland Fish. Soc.
India, 8: 151-152.

The authors report that a remarkable growth of C. batrachus could be obtained when the fishes were stocked in a 0.076 ha pond which was already having a dense population of I. mossambica. The pond was fertilised with domestic waste waters from Titagarh sewage treatment plant. No other management measure was adopted. C. batrachus grew to an av. wt. of 195.9 g in 100 days. 3 ref.

122. Gopalakrishnan, R. and P.J. Joy 1977
 (Kerala Agricultural University, Trichur, Kerala)
 Aquatic weeds Salvinia and Eichhornia. Indian Fmg., 26(12):
 39-46.

The paper deals with damages and threat caused by Salvinia and Eichhornia and their growth. The economic utilization of the weeds and their control is also discussed.

123. Gupta, S.D. 1976
 (Central Inland Fisheries Research Substation, 19 Cantonment
 Road, Cuttack, Orissa).
 Macrobenthic fauna of Loni reservoir. J. Inland Fish. Soc.
India, 8 : 49-59. 24 ref.

124. James, P.S.B.R., T.J. Verghese and K.V. Devaraj 1976
 (Fisheries College, University of Agricultural Sciences,
 Mangalore).
 Some observations on the possibilities of culture of the
 Indian sand whiting Sillago sihama (Forsk.) in brackish waters
Ibid, 8:212-220. 2 ref.

125. Jeyachandran, P. and Samuel Paul Raj 1976
(Department of Fishery Science, Tamil Nadu Agricultural
University, Coimbatore).
Experiments with artificial feeds on Cyprinus carpio
fingerlings. Ibid, 8 : 33-37.

The authors observed that the weight increment of the fish was resulted from the conventional feed, pellet and silk-worm pupae when given @ 5% body weight for 6 days a week, out of the four different types of artificial feed supplied. 9 ref.

126. Jha, B.C. 1977
(Central Inland Fisheries Research Substation, Allahabad)
A note on the culture of the phytoplankton Navicula cuspidata
(Kutz). Aquaculture, 10(1):87-90.

Of the three media viz., Mustard oilcake, Rice bran and Mustard oilcake & rice bran tried for culture of the diatom Navicula cuspidata, rice bran was found to be the best for supporting the growth of the plankton. According to the author this may be attributed to higher percentage of silica in the rice bran which ^{is} considered as an important factor for the growth of diatom. 13 ref.

127. Joyti, M.K. 1976
(Department of Bio-Sciences, University of Jammu, Jammu)
Seasonal variations in food and feeding habits of some
lacustrine fishes of Kashmir. J. Inland Fish. Soc. India,
8 : 24-32 .

The paper presents the results of the gut content analysis of Crossocheilus latius, diplochilus, Schizothorax niger and Botia birdi. It was observed that all the three species are selective in natural food intake. 12 ref.

128. Kaur Kamaldeep and H.S. Toor 1977
(Department of Zoology, Punjab Agricultural University,
Ludhiana).
Toxicity of pesticides to embryonic stages of Cyprinus carpio
Communis Linn. Indian J. exp. Biol., 15(3):193-196.

Effects of different concentrations of pesticides viz., Diazinon, fenitrothion, carbaryl, malathion and phosphamidon on the fertilised eggs of C. carpio has been reported. Survival of developing eggs, percentage of hatching etc. decreased with the increasing concentration of the pesticides. stunted growth, in ward curving of tail, deformed vertebral column and head etc. are some of the deformities caused due to exposure to these pesticides.
11 ref.

129. Kawatra, A.K. 1977

(Director & Warden of Fisheries, Punjab, Chandigarh)

Role of fish ways in maintaining equilibrium of fish population in Punjab rivers. Punjab Fish. Bull., 1(1):11-13.

The author has stressed on the maintenance of the existing fish passes in the dams, constructed across the rivers of Punjab State, to maintain the equilibrium of fish population in the state.

130. Khan, H.A., B.B. Ghosh and S.K. Mukhopadhyay 1976

(Central Inland Fisheries Research Institute, Barrackpore, West Bengal).

Observations on the salinity tolerance of Anabas testudineus (Bloch). J. Inland Fish. Soc. India, 8 : 111-112.

The results of the experiments conducted by the authors indicated that the survival of A. testudineus was 100% upto 11.5‰ salinity and at 12.5‰ salinity all the fishes died within 29 hours. The time of kill was reduced to 25 minutes at 30‰ salinity level.
2 ref.

131. Khosla, A.K. 1977

(Fish Farmers Development Agency, Gurdaspur, Punjab, India).

Training to the fisheries officers in the State of Punjab.

Punjab Fish. Bull., 1(1): 29

132. Kulshreshtha, S.D.¹ and K.P. Sharma² 1976

(¹Post-graduate Department of Zoology, Govt. College, Kota, Rajasthan. ²Department of Fisheries, Basrah University, Iraq).

Biological control of aquatic weeds in the Chambal commanded area of Kota using grass carp, Ctenopharyngodon idella(Val.)

J. Inland Fish. Soc. India, 8:113-114.

In a water area of 1,309 ha, having about 44,078,836 kg of different weeds, 66,500 fingerlings of C. idella were released at different parts in the Right main canal of the Chambal commanded area. Though the authors could not observe any significant relief from weeds, quantitative estimations indicated removal of particular weeds to varying degrees. The authors report that removal of Hydrilla was maximum while Potamogeton and Ceratophyllum were also removed to a considerable extent. 2 ref.

133. Kumar, Sudesh 1977
(Office of the District Fisheries Officer, Punjab Fisheries Department, Sangrur, Punjab).
Scope of cage fish culture in canals of Punjab. Punjab Fish. Bull., 1(1): 24-26.

Cage culture of fish in Punjab waters, density of stocking, design of cages, production potential etc. have been discussed.

134. Mahajan, C.L. and K.P. Sharma 1976
(Department of Zoology, University of Rajasthan, Jaipur-4, Rajasthan, India).
Studies on the effect of some vitamins and antibiotics on the survival and growth of carps in the first few weeks of their life. J. Inland Fish. Soc. India, 8: 194-199.

The paper reports a number of experiments designed to counteract nutritional deficiency and large scale mortality (70-90%) of Labeo rohita and Cyprinus carpio by providing vitamin supplements alone or in combination with antibiotics. Best results (87-89%) was obtained in B-complex yeast combination. 4 ref.

135. Mazumdar, Ira and Nirmala Chatterjee 1974
(Department of Zoology, Patna University, Patna-5).
On the nature and origin of the corpuscular yolk in the vitellogenetic Oocytes of three freshwater teleost fishes, Channa punctatus, Heteropneustes fossilis and Clarias batrachus. J. Zool. Soc. India, 26(1&2): 29-45. 45 ref.

136. Menon, A.G.K. 1977
 (Zoological Survey of India, Madras).
 Fish and malaria control. Sci. & Cult., 43(3): 110-114

Indigenous larvivorous fishes, which may help in controlling mosquito larvae, have been described with key to the identification of the species. The author has stressed on the introduction of larvivorous fishes for controlling malaria as the cost of insecticide have increased and mosquitos have developed resistance to D.D.T.
 7 ref.

137. Nama, H.S. and R.S. Jain
 (Department of Zoology, University of Jodhpur, Jodhpur)
 On a new species of Camallanus [Nematoda : Spiruridea: Camallonidae] from Rana tigrina. J. Zool. Soc. India, 26(1 & 2): 19-21 .

A nematode, belonging to the genus Camallanus, recovered from the intestine of an Indian bull frog Rana tigrina has been described.
 7 ref.

138. Nammalwar, P. 1977
 (Regional Centre, Central Marine Fisheries Research Institute, Mandapam Camp).
 Note on osmoregulatory changes in an estuarine nudibranch mollusc Onchidium verraculatum off Porto-Novo. Sci. & Cult., 43(3)137-138.

Osmoregulatory changes in Onchidium verraculatum due to changes from their normal environment to concentrated sea water medium have been dealt with. 2 ref.

139. Nandy, A.C. and D.P. Chakraborty 1976
 (Central Inland Fisheries Research Substation, Barrackpore, West Bengal).
 A note on the use of unripe fruits Randia dumetorum Lam. as a fish poison. J. Inland Fish. Soc. India, 8 : 134-136.

Eradication of weed fishes and predatory fishes were tried with the unripe fruits of R. dumetorium from fish ponds. Unripe fruits were sundried powdered and used as an effective fish toxicant in yard and field trials.

140. Narasimha Rao, L. 1974
(Science College, Saifabad, Hyderabad, India)
Observations on the caecal epithelium in three trematode parasites of Rana tigrina. J. zool. Soc. India, 26(1&2):63-67

Different modifications of the epithelial cells in the caeca of three trematodes viz., Tremiorchis ranarum, Ganeo tigrinum and Mehraorchis ranarum, have been described. 9 ref.

141. Natarajan, A.V.¹, V.R. Desai² and D.N. Misra³ 1976
(¹Central Inland Fisheries Research Substation, 30 Pannalal Road, Allahabad. ²Coordinated Project on Reservoir Fisheries, CIFRI, Rihand Dam, P.O. Turra, Dt. Mirzapur (U.P.). ³Coordinated Project on Composite culture, CIFRI, Gujartal Fish Farm, P.O. Khudaoli, Dt. Jaunpur (U.P.)).
On the natural occurrence of the inter-generic catla rohu hybrid in Rihand (Uttar Pradesh) with an account of its potential role in reservoir fisheries development in India. J. Inland Fish. Soc. India 8 : 83-90.

The paper presents the taxonomic characters of the hybrids. The morpho biological factors which favour hybrid formation in Rihand, the food and feeding habits and the role of the hybrid in the development of reservoir fisheries in India have been discussed. 15 ref.

142. Pal, R.N. 1976
(Central Inland Fisheries Research Institute, Barrackpore, West Bengal).
Treatment of tumours in Anabas testudineus (Bloch). Ibid, 8 : 105-106.

The note deals with the treatment of tumours in A. testudineus by application of oxytetracycline hydrochloride. The author reports that in four cases the tumours started falling off within seven or eight days of treatment with 500 ppm of terramycin. 2 ref.

143. Pal, R.N.¹, H.P. Singh² and M. Choudhury³ 1976
 (1 Central Inland Fisheries Research Institute, Barrackpore, West Bengal. 2&3 Air-breathing Fish Culture Centre of the Central Inland Fisheries Research Institute, Gauhati, Assam).
 Oxygen consumption of the spawn of Anabas testudineus (Bloch).
Ibid, 8:140-142.

Those of The authors observed that the consumption of oxygen by 2 days' old spawn was three times more than 4-6 days old. The consumption rate of oxygen fell sharply with the age upto 6 days' old hatchlings.
 4 ref.

144. Pandey, B.N., J.S. Datta Munshi, B.J. Choubey and P.K. Pandey 1976
 (Post Graduate Department of Zoology, Bhagalpur University, Bhagalpur 812007)
 Seasonal variation in body composition in relation to breeding cycle of an air-breathing fish, Heteropneustes fossilis (Bloch)
Ibid, 8: 91-96

The authors observed marked seasonal variations in the lipid and water content in Heteropneustes fossilis. The maximum lipid content was observed in the winter months when the gonads were in regressing phase while the minimum was recorded in the breeding season. 30 ref.

145. Panwar, R.S., D. Kapoor, H.C. Joshi and R.A. Gupta 1976
 (Central Inland Fisheries Research Substation, 24-Pannalal Road, Allahabad-211002, U.P.).
 Toxicity of some insecticides to the weed fish, Trichogaster fasciatus (Bloch and Schneider). Ibid, 8 : 129-130.

From their observations the authors concluded that of the organochlorine insecticides tried endrin was more toxic to Trichogaster fasciatus than malathion but less toxic than ethyl parathion. 7 ref.

146. Parameswaran, S and V.K. Murugesan 1976
 (All India Coordinated Project on Air-breathing fishes, Central Inland Fisheries Research Institute, Bhadra Reservoir Project, Karnataka State)
 Breeding season and seed resources of murrels in swamps of Karnataka State. J. Inland Fish. Soc. India, 8 : 60-67

The authors observed that the breeding season of C. marulius and C. striatus extends from February to October-November, while for C. punctatus and C. orientalis it extends from April to August and May to August respectively. Seed abundance was found during June and July coinciding with peak rainfall. 12 ref.

147. Patnaik, S. 1976
 (Central Inland Fisheries Research Substation, Cuttack, Orissa)
 Autecology of Ipomoea aquatica Forsk. Ibid, 8 : 77-82

The author observed that the flowering of the plant started from October and continued till April. Both vegetative and sexual multiplications were found to be present in the species. Monsoon & post monsoon months were the periods of active growth and most suitable time for control of the weed. 14 ref.

148. _____ 1976
 (Central Inland Fisheries Research Substation, Cuttack)
 Control of some aquatic vegetation in fish ponds at Cuttack. J. Inland Fish. Soc. India 8: 221-226

The author observed that Eichhornia Salvinia etc. could be effectively controlled by the application of "Gramoxone" @ 0.2 to 1.0 kg a.i./ha. The author also observed that the weedicides like "Gramoxone", 2-4-D (mud pellets) were not toxic to fish. 15 ref.

149. Patnaik, S¹ and S.K. Sarkar² 1976
 (1 Central Inland Fisheries Research Substation, Cuttack, Orissa. 2 Central Inland Fisheries Research Substation, Hazaribagh, Bihar)
 Observations on the distribution of phytoplankton in Chilka lake.
Ibid, 8: 38-48 : 22 ref.

150. Pillai, R.S.¹ and G.M. Yazdani² 1974
 (1 Southern Regional Stn., Zoological Survey of India, Madras. 2 Western Regional Stn., Zoological Survey of India, Poona).
 Two new species and two records of Lepidocephalichthys Bloek (Pisces: Cobitidae) from Assam and Meghalaya, India with a key to known species. J. Zool. Soc. India 25 (1&2): 11-17
- Two new species of Lepidocephalichthys have been described. A key for identification of seven species of the genus has been presented. 6 ref.
151. Prabhavathy, G & A. Sreenivasan 1976
 (Hydrobiological Research Station, Madras-10, India)
 Occurrence of Argulus japonicus in brood fish ponds in Tamil Nadu. J. Inland Fish. Soc. India, 8 : 131-133
- Morphology and anatomy of A. japonicus, collected from Sathanur fish farm in Tamil Nadu, have been described. 4 ref.
152. Prasad, Ravindra 1976 of
 (Assistant Director/Fisheries, Pilli Dam. Bijnor Dist. Uttar Pradesh)
 On the occurrence of the hybrids Labeo fimbriatus (BL) x Labeo gonius (Ham.) and Labeo calbasu (Ham.) x Catla catla (Ham.) in Rangawan reservoir (Uttar Pradesh)
J. Inland Fisheries Soc. India, 8 : 107-108
- Morphometric features of the hybrids have been presented. 4 ref.
153. Prasadam, R.D. & K. Gopinathan 1976
 (Pulicat Lake Unit of Central Inland Fisheries Research Institute, Madras - 11, India).
 Experimental studies on the food preferences and the effect of supplementary feeds on the growth and survival of the grey-mulletts Mugil macrolepis Smith.. Ibid, 8 : 173-178. 7 ref.

154. Prashar, B.K. 1977
(Information & Extension Division, Directorate of Fisheries,
Punjab, Chandigarh, India).
Role of fisheries extension projects. Punjab Res. Bull.
1(1):30-32.
155. Rahman, M.F. and S.L. Raghavan 1976
(Tank Fisheries Research Unit, Central Inland Fisheries
Research Institute, Bangalore-560001).
Record of a tailless Clarias batrachus (Linnaeus) from
Hebbal tank. J. Inland Fish. Soc. India, 8: 124p
156. Rajagopal, K.V. 1976
(Department of Zoology, Bangalore University, Bangalore).
On the possibility of utilizing some carps for the biological
control of aquatic weeds and molluscs. Ibid, 8:200-205.
- Efficiency of Puntius dobsonii, Puntius pulchellus and Puntius sarana in controlling aquatic weeds and molluscs have been assessed. The analysis of gut contents of these species revealed that they feed either exclusively on aquatic weeds and on molluscs. 13 ref.
157. Ramakrishna, K.V. 1976
(Pulicat Lake Unit, 11A Patel Road, Madras, India).
Trout culture on commercial scale in Himalayan ranges.
Ibid, 8:184-193.
- Methods of maintenance of breeders, artificial food and feeding of trouts, stripping method for artificial propagation and technique of rearing of young ones have been discussed. Hybridisation of trouts for improving stocks and impounding net culture in high altitude lakes have been suggested. The author has suggested for introduction of C. carpio to enhance production from trout culture.
158. Raman, K. and K. Gopinathan 1976
(Pulicat Lake Unit of the Central Inland Fisheries Research
Institute, 19-A, Patel Road, Madras-600011, India).
On an abnormality in the external genitalia of Penaeus semisulcatus de Haan from Lake Pulicat. Ibid, 8:156p. 2 ref.

159. Rao, G. Ramamohana and K. Gopinathan 1976
(Pulicat Lake Unit of Central Inland Fisheries Research Institute, 19/A Patel Road, Madras- 11, India).
On the differential recruitment of prawn and fish larvae at the mouth of lake Pulicat. Ibid, 8:153-155. 7 ref.
160. Rao, K. Madhusudhana 1976
(Inland Fisheries Training Centre(CIFE), Barrackpore, West Bengal, India).
Plankton ecology of a fish pond fed by reservoir water at Hyderabad, Andhra Pradesh. Ibid, 8: 160-162. 5 ref.
161. Rao, P.S. 1976
(Central Institute of Fisheries Education, Bombay-58, India).
Role of fishery cooperatives in inland fish culture.
Ibid, 8:166-172.
162. Reddy, S. Ravichandra¹, Katre Shakuntala², G.N. Natarajan³ and H.R. Karigirivasan⁴ 1977
(^{1&2}Department of Zoology. ^{3&4}Department of Physics, Bangalore University, Bangalore - 560001).
Predatory efficiency of Gambusia affinis in relation to different illuminations. Indian J. exp. Biol. 17(3):237-238.

Predatory efficiency of G. affinis studied under different illumination ranging from 0 to 10⁴ lux, has been reported. From their observation the authors opine that the predatory efficiency of the species increases from dark dawn period of the day to dull day and further in bright sun and the fish is a visual predator. 10 ref.
163. Saxena, O.P. and H.K. Bhatia 1977
(Zoology Research Laboratories, Multanimal Modi College, Modinagar-201204).
Intersexuality in the freshwater teleost, Heteropneustes fossilis. Curr. Sci., 46(9): 307p

Presence of ovotestis in a specimen of H. fossilis has been reported. 5 ref.

164. Sehgal, K.L.¹, A.R. Wani², Ghulam Nabi³ and Kuldip Kumar⁴ 1976
 (1&4 Central Inland Fisheries Research Institute, Barrackpore, West Bengal. 2&3 Directorate of Game and Fisheries, Jammu & Kashmir, Govt. Srinagar).
 Experiments on the efficiency and cost of dry compound pelletized feed in relation to conventional feed in Kashmir trout farm. J. Inland Fish. Soc. India, 8:1-12.

Three types of feeds containing 28.0, 35.0 and 26.4% of crude protein were tried for artificial feeding of trouts. The conversion ratios obtained were 2.7, 1.9 & 1.9 in brown and 2.6, 2.2 and 1.4 in rainbow trouts respectively. Food efficiency and conversion ratios were found better in rainbow trout. 13 ref.

165. Sen, P.R.¹ and S.C. Banerjee 1976
 (1 Central Inland Fisheries Research Substation, Cuttack.
 2 Central Inland Fisheries Research Substation, 47/1, Strand Road, Calcutta-7).
 Estrogenic hormones in the ovaries of major carp Labeo rohita during the different stages of maturity. Ibid, 8: 72-76

Studies on the relative abundance of estrogenic hormones during different stages of maturity of L. rohita, revealed that in immature condition the hormone levels were very low, which suddenly increased during follicle maturation stage (stage III) and then again decreased gradually during stage IV & V. In spent condition the hormone level was found to increase. Changes in diameter and weight of ova and gonadosomatic indices along with other physiological changes were also studied by the authors. 19 ref.

166. Shafi, M.d. 1977
 (Department of Zoology, Ranchi University, Ranchi-8).
 Glycogenesis in the liver of a murrel fish. Curr. Sci. 46(8): 267-268.

Pattern of localisation of glycogen in the hepatic cells of Ophicephalus punctatus has been described. 5 ref.

167. Shakuntala Katre 1976

(Department of Zoology, Bangalore University, Bangalore 560001)

Note on the changes in egg weight during the early development of Macrobrachium rude (Heller) . J. Inland Fish. Soc. India, 8 : 109-110.

The relationship between total length and number of eggs/brood and egg weight changes & percentage of water content during different developmental stages of M. rude have been discussed. 6 ref.

168. Sharma, G.P., Ram Parshad and R.P. Nayyar 1977

(Department of Zoology, Punjab University, Chandigarh, India)

Chromosome number and meiosis in three species of fishes.

Punjab Fish. Bull., 1(1): 2-5.

Morphology & number of chromosomes in Gambusia affinis, Esomus danrica and Danio rerio have been presented. The general course of meiosis in these three species have also been described. 16 ref.

169. Singla, B.L. 1977

(Assistant Director of Fisheries (Research) Sangrur, Punjab, India).

Composite fish culture in Punjab. Ibid, 1(1): 17-18.

170. Sreenivasan, A. and K. Venkatanarasimha Pillai 1976

(Hydrobiological Research Station, Madras-600010, India).

Fertilisation of fishery waters : experimental fertilisation of a small reservoir. J. Inland Fish. Soc. India, 8: 117-119

Effects of fertilization in a reservoir, the water spread area of which gets reduced to 25 ha when the discharge through river is stopped, have been presented. The immediate effects of superphosphate and urea applications were the increase of phosphorus in soil and water phase, increase of organic matter, organic carbon, silicate etc. and benthic fauna and flora. The application of fertilizers @ 10-20 kg/ha has resulted in 90% increase in fish landings. 9 ref.

171. Srinivasachar, H.R., S. Ravichandra Reddy and Katre Shakuntala 1976
(Department of Zoology, Bangalore University, Bangalore-560001, India).
Food intake and conversion efficiency of Heteropneustes fossilis (Bloch) in relation to light and dark periods. Ibid, 8:143-144

The authors observed that light has no influence on food intake, growth and conversion efficiency of H. fossilis. 15 ref.

172. Subramaniyan, B.R., V. Ramadhas and V.K. Venugopalan 1977
(Centre of Advanced Study in Marine Biology, Parangipettai 608502, Tamil Nadu)
Nannoplankton production in Vellar estuary. Curr. Sci., 46(7):212-215.

Nannoplankton and netplankton primary production were estimated at 3 stations in Vellar estuary during premonsoon and monsoon months of 1974. Salinity was the chief factor in controlling the productivity of both nanno- and net plankton. 26 ref.

173. Sunder, Shyam 1976
(Cold Water Fisheries Research Unit of the Central Inland Fisheries Research Institute, Harwan, Srinagar).
A note on the catches of Crossocheilus latius (Hamilton) in commercial landings of Dal lake, Srinagar, Kashmir during 1969-71. J. Inland Fish. Soc. India, 8:149-150. 2 ref.

174. Swarup, Krishna and Shivaji Srivastava 1976
(Department of Zoology, University of Gorakhpur, Gorakhpur, U.P. India).
Occurrence of synchronous hermaphroditism in the murrel Channa striatus (Bloch). Ibid, 8 : 120p. 7 ref.

175. Tandon, K.K. 1977
(Department of Zoology, Punjab University, Chandigarh, India).
Spawning of mirror carp in a garden pool. Punjab Fish. Bull., 1(1):8-9. 2 ref.

176. Tilak, Raj and Akhlaq Husain 1977
 (Zoological Survey of India, Northern Regional Station,
 71, Hakrata Road, Dehra Dun, U.P.)
 Extension of the range of distribution of a Microhylid frog
 (Uperodon systoma (Schneider)). J. Bombay nat. Hist. Soc.,
73(2):407-408.

The authors opine that Uperodon systoma, collected from Siwalik hills, Uttar Pradesh, extends its distributional record in Indian sub-continent. 8 ref.

177. Trivedi, Y.A. 1977
 (Marine Biological Research Station, Departments of Fisheries,
 Port Blair, Andaman).
 Crabs- are they nutritious? Sci. Repr., 14(4):249-252.

The paper deals with the habit and habitat, life history, the crab fishery in India and their capture method. Also discussed the nutritional and medicinal value of crabmeat.

178. Varghese, T.J., K.V. Dev Raj and B. Shantharam 1976
 (Fisheries College, University of Agricultural Science, Mangalore)
 Relative growth of the grass carp, Ctenopharyngodon idella (val.)
 fed on utricularia and a mixture of Azolla and Lemna
J. Inland Fish. Soc. India, 8:206-211. 8 ref.

179. Woyanovich, E. 1976
 (FAO/UNDP Fishery and Fish Culture Development Project,
 Caracas 101, Venezuela).
 Artificial propagation of herbivorous carps among primitive
 circumstances. Ibid, 8:227-232. 8 ref.

180. Yazdani, G.M. 1976
 (Zoological Survey of India, Western Regional Station,
 Poona-I, India).
 The specific identity of the sole, Zebrias zebra (Bloch) in
 Indian waters. J. Bombay nat. Hist. Soc., 73(2):408p

II AUTHOR INDEX

Every author's name appearing in the original article is listed alphabetically, including corporate bodies (societies, organisations etc.), whether occurring as single or multiple words. (Reference is given to the serial no. of the entry).

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